

Benjamin Wong Blonder

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EDUCATION

University of Arizona. 2009–2014. Ph. D., ecology and evolutionary biology (advisor: **B.J. Enquist**).

University of Idaho. 2008–2009. Certificate in environmental education; coursework for M. Ed. program.

Swarthmore College. 2005–2008. B.A., physics with mathematics minor (advisor: **C. Grossman**).

APPOINTMENTS

University of California at Berkeley, 01/20 – present. Assistant professor, Department of Environmental Science, Policy, and Management, and Curator of Macroecology, University and Jepson Herbaria.

Arizona State University, 01/18 – 12/19. Assistant professor, School of Life Sciences.

University of Oxford, 04/15 – 12/17. Research fellow, UK Natural Environment Research Council (NERC), based at the Environmental Change Institute (School of Geography and the Environment).

Balliol College, University of Oxford. 10/15 – 12/17. Junior research fellow and governing board member.

Wolfson College, University of Oxford. 03/15 – 09/15. Junior research fellow.

OTHER EMPLOYMENT

University of Arizona Sky School, 01/12 – present. Science coordinator and co-founder of inquiry-based and place-based science education program for Arizona K-12 schools.

AmeriCorps. 08/08 – 08/09. Service corps member (state program), based in McCall, Idaho.

VISITING POSITIONS

Norwegian University of Science and Technology. 2015-2017. Visitor, plant ecology group. (host: B. Graae).

University of Oxford. 2014. Visitor, ecosystems group (host: Y. Malhi).

Aarhus University. 2013. Visitor, ecoinformatics group (host: J.C. Svenning).

University of Copenhagen. 2012-2013. Visitor, Center for Macroecology, Evolution, and Climate (hosts: C. Rahbek, D. Nogués-Bravo).

BOOKS BY YEAR

2023

- **Blonder, B.**, et al. Place-Based Scientific Inquiry: A Practical Handbook for Teaching Outside, Grades 3-12. *Routledge*.

POPULAR/EDITORIAL PUBLICATIONS BY YEAR

2023

- **Blonder, B.** Carrying the moral burden of safe fieldwork. *Bulletin of the Ecological Society of America* 104(1), e02031.

2022

- **Blonder, B.**, Bowles, T., De Master, K., [Fanshel, R.Z.](#), Giroto, M., [Kahn, A.](#), Keenan, T., Mascarenhas, M., [Mgbara, W.](#), Pickett, S., Potts, M., & Rodriguez, M. Advancing Inclusion and Anti-Racism in the College Classroom: A rubric and resource guide for instructors. *Zenodo*.

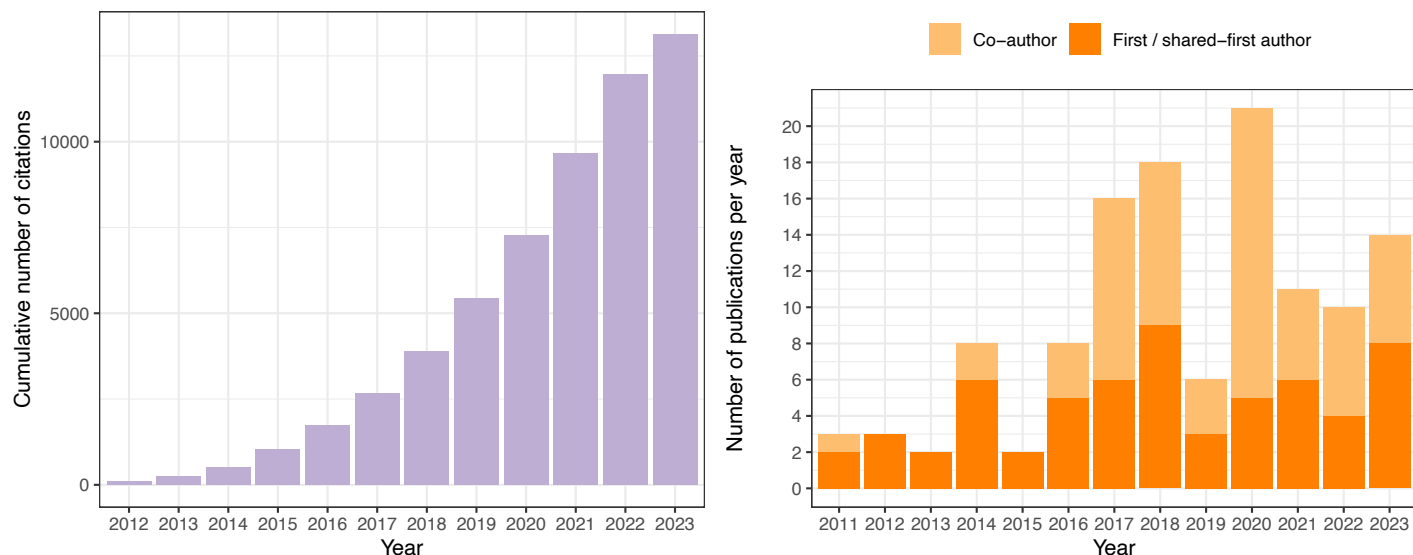
2021

- **Blonder, B.** A lynching in Gothic, Colorado? *Colorado Magazine* (summer issue).
- **Blonder, B.** Who belongs here? Remembering all of our history is important [op-ed] *Crested Butte News* (7/30/2021).

2017

- [Puritty, C.](#), [Strickland, L.](#), [Alia, E.](#), **Blonder, B.**, Klein, E., Kohl, M., [McGee, E.](#), Quintana, M., Ridley, R., Tellman, B., Gerber, L. Without inclusion, diversity initiatives may not be enough. *Science* 357(6356), 1101-1102.

PEER-REVIEWED PUBLICATIONS BY YEAR



(h-index=44, 13,355 total citations since 2011)

(journals colored in **green**, student co-authors colored in **blue**)

2023

- **Laini, A.**, Datry, T., **Blonder, B.** N-dimensional hypervolumes in trait-based ecology: does occupancy rate matter? *Functional Ecology* (accepted).
- **Guo, Z.**, Still, C.J., Lee, C.K.F., Ryu, Y., **Blonder, B.**, Wang, J., Bonebrake, T.C., Hughes, A., Li, Y., Yeung, H.C.H., Zhang, K., Law, Y.K., Lin, Z. Wu, J. (2023), Does plant ecosystem thermoregulation occur? An extratropical assessment at different spatial and temporal scales. *New Phytologist* 238(3), 1004-1018.
- **Blonder, B.**, Gaüzère, P., Iversen, L., Ke, P.-J., Petry, W., **Ray, C.**, Salguero-Gómez, R., **Sharpless, W.**, Violle, C. Predicting and controlling ecological communities via trait and environment mediated parameterizations of dynamical models. *Oikos*, e09415
- **Garen, J.**, Aparecido, L., **Blonder, B.**, Cavaleri, M., Slot, M., Michaletz, S. Canopy-top measurements do not accurately quantify canopy-scale leaf thermoregulation. *Proceedings of the National Academy of Sciences* 120(15), e2301914120.
- **Blonder, B.**, Brodrick, P., Chadwick, K.D., **Carroll, E.**, Cruz, R., Expósito-Alonso, M., Hateley, S., Moon, M., **Ray, C.**, Tran, H., **Walton, J.** Climate lags and genetics determine phenology in quaking aspen (*Populus tremuloides*). *New Phytologist* 238(6), 2313-2328.
- **Blonder, B.**, Aparecido, L., Hultine, K., Lombardozzi, D., Michaletz, S., Posch, B., Slot, M., Winter, K. Plant water use theory should incorporate hypotheses about extreme environments, population ecology, and community ecology. *New Phytologist* 238(6), 2271-2283.
- **Blonder, B.**, **Lim, M.**, Sunberg, Z., Tomlin, C., Navigation between initial and desired community states using shortcuts. *Ecology Letters* 26(4), 516-528.
- **Duarte, M.**, **Woo, S.**, Hultine, K., **Blonder, B.**, Aparecido, L. Vein network redundancy and mechanical resistance mitigate gas exchange losses under simulated herbivory in desert plants. *AOB PLANTS* 15(2), plad002.

2022

- **Ray, C.**, **Kapás, R.**, Opedal, Ø., **Blonder, B.**, Linking microenvironment modification to species interactions and demography in an alpine plant community. *Oikos*, e09235.
- Gaüzère, P., **Blonder, B.**, Denelle, P., Fournier, B., Grenié, M., Delalandre, L., Münkemüller, T., Munoz, F., Violle, C., Thuiller, W. The functional trait distinctiveness of plant species is scale dependent. *Ecography* e06504.

- [Ali, J.](#), **Blonder, B.**, Pigot, A., Tobias, J. Bird extinctions threaten to cause disproportionate reductions of functional diversity and uniqueness. *Functional Ecology* 37(1), 162-175.
- [Garen, J.](#), Branch, H., Borrego, I., **Blonder, B.**, Stinziano, J., Michaletz, S. Gas exchange analyzers exhibit large measurement error driven by internal thermal gradients. *New Phytologist* 236(2), 369-384.
- Díaz, S., ..., **Blonder, B.**, et al. The global spectrum of plant form and function: enhanced species-level trait dataset. *Scientific Data* 9(755).
- **Blonder, B.**, Brodrick, P., [Walton, J.](#), Chadwick, K.D., Breckheimer, I., Marchetti, S., [Ray, C.](#), Mock, K. Remote sensing of cytotype and its consequences for canopy damage in quaking aspen. *Global Change Biology* 28(7), 2491-2504.
- [Lembrechts, J.](#), ..., **Blonder, B.**, et al. Global maps of soil temperature. *Global Change Biology* 28(9), 3110-3144.
- Fordham, D., ..., **Blonder, B.**, et al. Process-explicit models reveal pathway to extinction for woolly mammoth using pattern-oriented validation. *Ecology Letters* 25(1), 125-137.

2021

- **Blonder, B.** Photos from: Cytotype predicts mortality and recruitment in Colorado quaking aspen forests. *Bulletin of the Ecological Society of America* 102(4), e01930.
- Trethowan, L., **Blonder, B.**, Kintamani, E., Girmansyah, D., Utteridge, T., Brearley, F. Metal-rich soils increase tropical tree stoichiometric distinctiveness. *Plant and Soil* 461, 579-589.
- [Flower, C.](#), Hodgson, W., Salywon, A., [Maitner, B.](#), Enquist, B., Peeples, M., **Blonder, B.** Human food use increases plant geographic ranges in the Sonoran Desert. *Global Ecology and Biogeography* 30(7), 1461-1473.
- **Blonder, B.**, [Ray, C.](#), [Walton, J.](#), [Castaneda, M.](#), Chadwick, K.D., [Clyne, M.](#), Gaüzere, P., Iversen, L., [Lusk, M.](#), Strimbeck, G. R., [Troy, S.](#), Mock, K. Cytotype predicts mortality and recruitment in Colorado quaking aspen forests. *Ecological Applications*, e02438.
- [Franzman, J.](#), [Brush, M.](#), Umemura, K., [Ray, C.](#), **Blonder, B.**, Harte, J. Shifting macroecological patterns and static theory failure in a stressed alpine plant community. *Ecosphere* 12(6), e03548.

2020

- Shenkin, A., ..., **Blonder, B.**, et al. The influence of ecosystem and phylogeny on tropical tree crown size and shape. *Frontiers in Forests and Global Change* 3(20), 109.
- Xu, H., **Blonder, B.**, Jodra, M., Malhi, Y., Fricker, M. Automated and accurate segmentation of leaf venation networks via deep learning. *New Phytologist* 229(1), 631-648.
- Gaüzère, P., Iversen, L., Seddon, A., Violle, C., **Blonder, B.** Equilibrium in plant functional trait responses to warming is stronger under higher climate variability during the Holocene. *Global Ecology and Biogeography* 29(11), 2052-2066.
- **Blonder, B.**, Both, S., Jodra, M., [Xu, H.](#), Fricker, M., Matos, I., Majalap-Lee, N., Burslem, D., Teh, Y., Malhi, Y. Linking functional traits to multiscale statistics of leaf venation networks. *New Phytologist* 228(6), 1796-1810.
- Chadwick, D., ..., **Blonder, B.**, et al. Integrating airborne remote sensing and field campaigns for ecology and Earth system science. *Methods in Ecology and Evolution* 11(11), 1492-1508.
- **Blonder, B.**, [Escobar, S.](#), Kapás, R., Michaletz, S. Low predictability of energy balance traits and leaf temperature metrics in desert, montane, and alpine plant communities. *Functional Ecology* 34(9), 1945-1955.
- Gaüzère, P., Morin, X., Violle, C., [Caspeta, I.](#), [Ray, C.](#), **Blonder, B.** Vacant yet invisable niches in forest community assembly. *Functional Ecology* (in press).
- [Lembrechts, J.](#), ... **Blonder, B.**, et al. SoilTemp: a global database of near-surface temperature. *Global Change Biology* 26(11), 6616-6629.
- [Aparecido, L.](#), [Woo, S.](#), [Suazo, C.](#), Hultine, K., **Blonder, B.** High water use in desert plants exposed to extreme heat. *Ecology Letters* 23(8), 1189-1200.

- Thomas, H., ..., **Blonder, B.**, et al. Global plant trait relationships extend to the climatic extremes of the tundra biome. *Nature Communications* 11, 1351.
- Helsen, K., Van Cleemput, E., Bassi, L., Graae, B., Somers, B., **Blonder, B.**, Honnay, O. Inter- and intraspecific trait variation shape multidimensional trait overlap between two plant invaders and the invaded communities. *Oikos* 129(5), 677-688.
- Jucker, T., Jackson, T., Zellweger, F., Swinfield, T., Gregory, N., Williamson, J., Slade, E., Phillips, J., Bittencourt, P., **Blonder, B.**, Boyle, M., Farnon Ellwood, M., Hemprich-Bennett, D., Lewis, O., Matula, R., Senior, R., Shenkin, A., Svátek, M., Coomes, D. A research agenda for microclimate ecology in human-modified tropical forests. *Frontiers in Forests and Global Change* 2(92).
- **Knight, C.**, Blois, J., **Blonder, B.**, Macias-Fauria, M., Ordonez, A., Svenning, J. Community assembly and climate mismatch in Late-Quaternary eastern North American pollen assemblages. *The American Naturalist* 195(2), 166-180.
- Kattge, J., ..., **Blonder, B.**, et al. TRY plant trait database - evolution towards enhanced coverage and open access. *Global Change Biology* 26, 119-188.
- Halbritter, A., ..., **Blonder, B.**, et al. The handbook for standardised field and laboratory measurements in terrestrial climate-change experiments and observational studies. *Methods in Ecology and Evolution* 11(1), 22-37.
- **Blonder, B.**, Graae, B., Greer, B., **Haagsma, M.**, Helsen, K., Kapas, R., Pai, H., **Rieksta, J.**, **Sapena, D.**, Still, C., Strimbeck, R. Remote sensing of ploidy level in quaking aspen (*Populus tremuloides* Michx.). *Journal of Ecology* 108(1), 175-188.

2019

- **Blonder, B.**, Both, S., Jodra, M., Majalap, N., Burslem, D., Teh, Y., Malhi, Y. Leaf venation networks of Bornean trees: images and hand-traced segmentations. *Ecology* 100(11), e02844.
- **Blonder, B.**, Both, S., Jodra, M., Majalap, N., Burslem, D., Teh, Y., Malhi, Y. Leaf venation networks of Bornean trees: images and hand-traced segmentations. *Bulletin of the Ecological Society of America* 100(4), e01606.
- Šimová, I., Sandel, B., Enquist, B., Michaletz, S., Kattge, J., Violle, C., McGill, B., **Blonder, B.**, Engemann, K., Peet, R., Wiser, S., Morueta-Holme, N., Boyle, B., Kraft, N., Svenning, J.-C. The relationship of woody plant size and leaf nutrient content to large-scale productivity for forests across the Americas. *Journal of Ecology* 107(5), 2278-2290.

2018

- **Blonder, B.**, Enquist, B.J., Graae, B.J., Kattge, J.K., Maitner, B.S., Morueta-Holme, N., Ordonez, A., Šimová, I., Singarayer, J., Svenning, J.-C., Valdes, P., Violle, C. Late Quaternary climate legacies in contemporary plant functional composition. *Global Change Biology* 24(10), 4827-4840.
- Bjorkman, A., ..., **Blonder, B.**, et al. Plant functional trait change across a warming tundra biome. *Nature* 562, 57-62.
- van Zonneveld, M., Larranaga, N., **Blonder, B.**, Coradin, L., Hormaza, J., Hunter, D. Human diets drive range expansion of megafauna-dispersed fruit species. *Proceedings of the National Academy of Sciences* 115(13), 3326-3331.
- Gaüzère, P., Iversen, L., Barnagaud, J.-Y., Svenning, J.-C., **Blonder, B.**, Empirical predictability of community responses to climate change. *Frontiers in Ecology and Evolution* 6, 186.
- Bruehlheide, H., ..., **Blonder, B.**, et al. Global trait–environment relationships of plant communities. *Nature Ecology and Evolution* 2, 1906-1917.
- **Blonder, B.**, Salinas, N., Bentley, L. P., Shenkin, A., **Chambi Porroa, P. O.**, **Valdez Teixeira, Y.**, Boza Espinoza, T. E., Goldsmith, G. R., Enrico, L., Martín, R., Asner, G. P., Díaz, S., Enquist, B. J., Malhi, Y. Structural and defensive roles of angiosperm leaf venation network reticulation across an Andes–Amazon elevation gradient. *Journal of Ecology* 106(4), 1683-1699.

- **Blonder, B.**, Kapas, R., [Dalton, R.](#), Graae, B., [Heiling, J.](#), Opedal, Ø. Microenvironment and functional-trait context dependence predict alpine plant community dynamics. *Journal of Ecology* 106, 1323-1337. **F1000 recommended.**
- **Blonder, B.**, Michaletz, S. A model for leaf temperature decoupling from air temperature. *Agricultural and Forest Meteorology* 262, 354-360.
- **Blonder, B.**, Both, S., Coomes, D., Elias, D., Jucker, T., Kvasnica, J., Majalap, N., Malhi, Y., Milodowski, D., Riutta, T., Svatek, M. Extreme and highly heterogeneous microclimates in selectively logged tropical forests. *Frontiers in Forests and Global Change* 1, 5.
- Doughty, C., Santos-Andrade, P., Shenkin, A., Goldsmith, G., Bentley, L., **Blonder, B.**, Díaz, S., Enquist, B.J., Martin, R., Salinas, N., Asner, G., Malhi, Y. Tropical forest leaves may darken in response to climate change. *Nature Ecology and Evolution* 2, 1918-1924.
- Thomas, H., ..., **Blonder, B.**, *et al.* Traditional plant functional groups explain variation in economic but not size-related traits across the tundra biome. *Global Ecology and Biogeography* 28(2), 78-95.
- Šimová, I., Violle, C., Svenning, J.-C., Kattge, J., Engemann, K., Sandel, B., Peet, R. K., Wiser, S. K., **Blonder, B.**, McGill, B. J., Boyle, B., Morueta-Holme, N., Kraft, N. J. B., van Bodegom, P. M., Gutiérrez, A. G., Bahn, M., Ozinga, W. A., Tószögyová, A., Enquist, B. J. Spatial patterns and climate relationships of major plant traits in the New World differ between woody and herbaceous species. *Journal of Biogeography* 45(4), 895-916.
- Peppe, D.J., Baumgartner, A., Flynn, A., **Blonder, B.** Reconstructing Paleoclimate and Paleoecology Using Fossil Leaves. In: D. A. Croft *et al.* (eds.), *Methods in Paleocology: Reconstructing Cenozoic Terrestrial Environments and Ecological Communities, Vertebrate Paleobiology and Paleoanthropology*.

2017

- **Blonder, B.**, Salinas, N., Patrick Bentley, L., Shenkin, A., [Chambi Porroa, P.](#), [Valdez Tejeira, Y.](#), Violle, C., Fyllas, N., Goldsmith, G., Martin, R., Asner, G., Díaz, S., Enquist, B., Malhi, Y. Predicting trait-environment relationships for venation networks along an Andes-Amazon elevation gradient. *Ecology* 98(5), 1239-1255.
- **Blonder, B.** Moulton, D., Blois, J., Enquist, B.J., Graae, B., Macias-Fauria, M., McGill, B., Nogué, S., Ordóñez, A., Sandel, B., Svenning, J.-C., Predictability in community dynamics. *Ecology Letters* 20(3), 293-306.
- Butler, E.E., ..., **Blonder, B.**, *et al.* Mapping local and global variability in plant trait distributions. *Proceedings of the National Academy of Sciences* 114(51), E10937-E10946.
- **Blonder, B.** Hypervolume concepts in niche- and trait-based ecology. *Ecography* 41(9), 1441-1455.
- **Blonder, B.**, [Babich Morrow, C.](#), [Maitner, B.](#), Harris, D., Lamanna, C., Violle, C., Enquist, B., Kerkhoff, A. New approaches for delineating n-dimensional hypervolumes. *Methods in Ecology and Evolution* 9(2), 305-319.
- **Blonder, B.** Lamanna, C., Violle, C., Enquist, B.J. Using n-dimensional hypervolumes for species distribution modeling: a response to Qiao *et al.* (2016). *Global Ecology and Biogeography* 26(9), 1071-1075.
- [Stark, J.](#), [Crawford, L.](#), [Lehman, R.](#), Enquist, B.J., **Blonder, B.** Does environmental heterogeneity drive functional trait variation? A test in montane and alpine meadows. *Oikos* 126(11), 1650-1659.
- Doughty, C.E., [Santos-Andrade, P.E.](#), Goldsmith, G.R., **Blonder, B.**, Shenkin, A., Bentley, L.P., Chavana-Bryant, C., [Huaraca-Huasco, W.](#), Díaz, S., Salinas, N., Enquist, B.J., Martin, R., Asner, G.P., Malhi, Y. Can Leaf Spectroscopy Predict Leaf and Forest Traits Along a Peruvian Tropical Forest Elevation Gradient? *Journal of Geophysical Research: Biogeosciences* 122(11), 2952-2965.
- Enquist, B., Patrick Bentley, L., Shenkin, A., [Maitner, B.](#), Savage, V., Michaletz, S., **Blonder, B.**, Buzzard, V., Espinoza, T., [Farfan-Rios, W.](#), Doughty, C., Goldsmith, G. Martin, R., Salinas, N., Silman, M., Díaz, S., Asner, G., Malhi, Y. Assessing trait-based scaling theory in tropical forests spanning a broad temperature gradient. *Global Ecology and Biogeography* 26(12), 1357-1373.
- Shipley, B., ... **Blonder, B.**, *et al.* Predicting habitat affinities of plant species using commonly measured functional traits. *Journal of Vegetation Science* 28(5), 1082-1095.

- Wu, M.S., Feakins, S., Martin, R., Shenkin, A., Patrick Bentley, L., **Blonder, B.**, Salinas, N., Asner, G., Malhi, Y. Altitude effect on leaf wax carbon isotopic composition in humid tropical forests. *Geochimica et Cosmochimica Acta* 206, 1-17.

2016

- **Blonder, B.**, Baldwin, B., Enquist, B.J., Robichaux, R. Variation and macroevolution in leaf functional traits in the Hawaiian silversword alliance (Asteraceae). *Journal of Ecology* 104(1), 219-228.
- **Blonder, B.** Pushing past boundaries for trait hypervolumes: a response to Carmona *et al.* *Trends in Ecology and Evolution* 31(9), 665-667.
- **Blonder, B.** Do hypervolumes have holes? *American Naturalist* 187(4), e-article.
- Feakins, S.J., **Peters, T.**, **Wu, M.S.**, Shenkin, A., Salinas, N., Girardin, C.A.J., Bentley, L.P., **Blonder, B.**, Enquist, B.J., Martin, R.E., Asner, G.P., Malhi, Y. Production of leaf wax n-alkanes across a tropical forest elevation transect. *Organic Geochemistry* 100, 89-100.
- Morueta Holme, N., **Blonder, B. (shared first-author)**, Sandel, B., McGill, B., Peet, R., Ott, J., Violle, C., Enquist, B.J., Jørgensen, P., Svenning, J. A network approach for inferring species associations from co-occurrence data. *Ecography* 39(12), 1139-1150.
- Goldsmith, G.R., Bentley, L.P., Shenkin, A., Salinas, N., **Blonder, B.**, Martin, R.E., **Castro-Crossco, R.**, **Chambi-Porroa, P.**, Díaz, S., Enquist, B.J., Asner, G.P. and Malhi, Y. Variation in leaf wettability traits along a tropical montane elevation gradient. *New Phytologist* 214(3), 989-1001.
- **Loranger, J.**, **Blonder, B.**, Garnier, E., Shipley, B., Vile, D., Violle, C. Occupancy and overlap in trait space along a successional gradient in Mediterranean old fields. *American Journal of Botany* 103(6), 1050-1060.
- Feakins, S.J., Bentley, L.P., Salinas, N., Shenkin, A., **Blonder, B.**, Goldsmith, G.R., Ponton, C., Arvin, L.J., **Wu, M.S.**, **Peters, T.**, Joshua West, A., Martin, R.E., Enquist, B.J., Asner, G.P., Malhi, Y. Plant leaf wax biomarkers capture gradients in hydrogen isotopes of precipitation from the Andes and Amazon. *Geochimica et Cosmochimica Acta* 182, 155-172.

2015

- **Blonder, B.**, Nogués-Bravo, D., Borregaard, M., Lessard, J.P., Violle, C., Svenning, J.-C., Rahbek, C., Enquist, B.J. Linking environmental filtering and disequilibrium to biogeography with a community climate. *Ecology* 96(4), 972-985. **F1000 recommended.**
- **Blonder, B.**, Vasseur, F., Violle, C., Shipley, B., Enquist, B.J., Vile, D. Testing models for the leaf economics spectrum with leaf and whole-plant traits in *Arabidopsis thaliana*. *Annals of Botany – Plants* 7, plv049 – **editor's choice.**

2014

- **Blonder, B.**, Royer, D., Johnson, K., Wilf, P., Miller, I., Boyle, B., Enquist, B. Plant ecological strategies shift at the Cretaceous-Paleogene boundary. *PLoS Biology* 12(9), e1001949.
- **Lamanna, C.A.**, **Blonder, B. (shared first author)**, Violle, C., Kraft, N.J.B., Sandel, B., **Šimová, I.**, **Donoghue III, J.**, Svenning, J.-C., McGill, B.J., Boyle, B., Buzzard, V., Dolins, S., Jørgensen, P.M., Marcuse-Kubitza, A., **Morueta-Holme, N.**, Peet, R.K., Piel, W., Regetz, J., Schildhauer, M., Spencer, N., Thiers, B.M., Wiser, S.K., Enquist, B.J. Functional trait space and the latitudinal diversity gradient. *Proceedings of the National Academy of Sciences* 111(38), 13745-13750.
- **Blonder, B.**, **Lamanna, C.**, Violle, C., Enquist, B.J. The n-dimensional hypervolume. *Global Ecology and Biogeography* 23, 595–609.
- **Blonder, B.**, Enquist, B.J. Inferring climate from angiosperm leaf venation networks. *New Phytologist* 204(1), 116-126.
- Moles, A. T., ..., **Blonder, B.**, *et al.* Which is a better predictor of plant traits: temperature or precipitation? *Journal of Vegetation Science* 25(5), 1167-1180.

- **Blonder, B.**, Violle, C., Patrick Bentley, L., Enquist, B.J. Inclusion of vein traits improves predictive power for the leaf economic spectrum: a response to Sack *et al.* (2013). *Journal of Experimental Botany* 65(18), 5109-5114.
- **Blonder, B.**, Sloat, L., Enquist, B.J., McGill, B.J. Separating macroecological pattern and process in ecological, economic, and geological systems. *PLoS One* 9(11), e112850.
- Lega, J., Tama, F., **Blonder, B.**, Buxner, S. Explorations in integrated science. *Journal of College Science Teaching* 43(4), 55-60.

2013

- **Blonder, B.**, Violle, C., Enquist, B.J. Assessing the causes and scales of the leaf economics spectrum using venation networks in *Populus tremuloides*. *Journal of Ecology* 101(4), 981-989.
- Pérez-Harguindeguy, N., Díaz, S., ..., **Blonder B.**, *et al.* New handbook for standardised measurement of plant functional traits worldwide. *Australian Journal of Botany* 61(3), 167-234.
- **Charbonneau, D.**, **Blonder, B.**, Dornhaus, A. Social insect networks. Chapter in Holme, P., Saramäki, J. (eds.), *Temporal Networks* (Springer-Verlag).

2012

- **Blonder, B.**, De Carlo, F., Moore, J., Rivers, M., Enquist, B.J. X-ray imaging of leaf venation networks. *New Phytologist* 196(4), 1274-82.
- **Blonder, B.**, Wey, T., Dornhaus, A., James, R., Sih, A. Temporal dynamics and network analysis. *Methods in Ecology and Evolution* 3(6), 958-972.
- **Blonder, B.**, Buzzard, V., Šímová, I., Sloat, L., Boyle, B., Lipson, R., Aguilar-Beaucage, B., Andrade, A., Barber, B., Barnes, C., Bushey, D., Cartagena, P., Chaney, M., Contreras, K., Cox, M., Cueto, M., Curtis, C., Fisher, M., Furst, L., Gallegos, J., Hall, R., Hauschild, A., Jerez, A., Jones, N., Klucas, A., Kono, A., Lamb, M., Matthai, J.D., McIntyre, C., McKenna, J., Mosier, N., Navabi, M., Ochoa, A., Pace, L., Plassmann, R., Richter, R., Russakoff, B., Aubyn, H.S., Stagg, R., Sterner, M., Stewart, E., Thompson, T.T., Thornton, J., Trujillo, P.J., Volpe, T.J., Enquist, B.J. The leaf-area shrinkage effect can bias paleoclimate and ecology research. *American Journal of Botany* 99(11), 1756-1763.

2011

- **Blonder, B.**, Violle, C., Patrick, L., Enquist, B.J. Leaf venation networks and the origin of the leaf economics spectrum. *Ecology Letters* 14 (2), 91-100.
- Kattge, J., ..., **Blonder, B.**, *et al.* TRY – a global database of plant traits. *Global Change Biology* 17(9), 2905-2935.
- **Blonder, B.** and Dornhaus, A. Time-ordered networks reveal limitations to information flow in ant colonies. *PLoS One* 6(5), e20298.

AWARDS, GRANTS, AND FELLOWSHIPS

(values are rounded; amounts $\geq \$100,000$ are shaded in **red**, $\geq \$10,000$ in **orange**)

2023	Society of Hellman Fellows (60,000 USD)
2023	US Forest Service Grand Mesa, Uncompahgre and Gunnison (GMUG) National Forests, How does coppicing affect quaking aspen genetic diversity (40,000 USD)
2022	US Department of Energy, Joint Genome Institute CSP program, Identifying the genetic basis of complex phenotypes and climate adaptation in quaking aspen (<i>Populus tremuloides</i>)
2022	US Department of Energy, BER program, Integrating tree hydraulic trait, forest stand structure, and topographic controls on ecohydrologic function in a Rocky Mountain subalpine watershed (640,167 USD, as co-PI)
2022	Rocky Mountain Biological Laboratory fellowship (1,000 USD)

2021 National Science Foundation – IOS program, Alternative leaf water use strategies in hot environments (194,319 USD, as co-PI)

2021 US Department of Agriculture, BNRE program, Predictive genetic approaches to quaking aspen forest management (650,000 USD)

2021 NSF Research Experiences for Teachers supplement (9,700 USD)

2021 Microsoft AI For Earth Azure (30000 USD, computation credits)

2021 Rocky Mountain Biological Laboratory fellowship (1,000 USD)

2020 Peder Sæther Center for Advanced Study (20,000 USD)

2020 Berkeley Faculty Research Fund for the Biological Sciences (20,000 USD)

2020 National Science Foundation - Research Experience for Teachers supplement (9,400 USD)

2020 Microsoft AI For Earth Azure (30000 USD, computation credits)

2019 ASU SOLUR ImpACT Scholar Program (supporting 1 URM student, 1600 USD)

2019 Microsoft AI For Earth Azure (15000 USD, computation credits)

2019 ASU – STRI partnership (6000 USD)

2019 ASU – STRI partnership (supporting 1 student, 7500 USD)

2019 Western Alliance to Expand Student Opportunities (supporting 7 URM students, 1250 USD each)

2018 National Science Foundation – ‘Rules of Life’ program, including four Research Experiences for Undergraduates (REU) (997000 USD)

2018 Center for Tropical Forest Science (8000 USD)

2018 Western Alliance to Expand Student Opportunities (supporting 4 URM students, 1300 USD each)

2017 British Ecological Society (5000 GBP)

2017 John Fell Fund (7500 GBP)

2016 Best reviewer award, 2014-2015 – *Global Ecology and Biogeography*

2015 Green 2.0 Working Group – Leadership at Work recognition

2015 Norwegian Research Council KLIMAFORSK visiting researcher grant (139000 NOK)

2015 UK Natural Environment Research Council 5-year independent research fellowship (250,000 GBP)

2015 University of California President’s Postdoctoral fellowship (~200,000 USD, declined)

2014 Norwegian Research Council 3-year fellowship (4200000 NOK, declined)

2014 Carlsberg Foundation 2-year fellowship (1200000 DKK, declined)

2014 Rocky Mountain Biological Laboratory research grant (750 USD)

2013 Aarhus University CIRCE collaboration (3000 USD)

2013 UA Institute for the Environment travel grant (500 USD)

2012 NSF Doctoral Dissertation Improvement Grant (15000 USD)

2012 University of Arizona graduate/professional student council travel grant (500 USD)

2012 UA Institute for the Environment travel grant (500 USD)

2012 ESA Physiological Ecology section travel grant (500 USD)

2012 NSF/DNRF Nordic Research Opportunity (Denmark) (25000 USD)

2012 Geological Society of America research grant (also outstanding mention award) (1400 USD)

2011-2012 University of Arizona BioME K-12 science teaching fellowship (30000 USD plus tuition)

2011-2012 National Geographic Committee on Research and Exploration research grant (5000 USD)

2011 ESA Physiological Ecology section travel grant (500 USD)

2011 Rocky Mountain Biological Laboratory summer research fellowship (900 USD)

2011 UA Institute for the Environment travel grant (500 USD)

2011 University of Arizona Galileo Circle scholarship (1000 USD)

2010 UA student showcase, President's Award and 1st prize, biological sciences division (250 USD)

2010-2011 Argonne National Laboratory, Advanced Photon Source beamline access

2010-2013 NSF graduate research fellowship (30000 USD x 3 years plus tuition)

2010-2011 Biosphere 2 Science and Society fellowship (3000 USD)

2010 Sigma Xi grant-in-aid of research (500 USD)

2010 University of Arizona graduate/professional student council travel grant (500 USD)

2009-2010 University of Arizona graduate college fellowship (30000 USD plus tuition)

2009 American Physical Society education mini-grant (500 USD)

2008-2009 DeVlieg Foundation scholarship (1000 USD)

AWARDS IN SUPPORT OF NONPROFITS

2023 Arizona Public Service, “STEM Outreach for Rural Arizona Communities” (50,000 USD)
2022 Life Sciences Initiative, Critical Engagements in Anti-Racist Environmental Scholarship (30,000 USD, as co-PI)
2021 Tucson Electric Power (Sky School fire ecology youth programs, 10,638 USD)
2021 Hickey Family Foundation (Sky School at-risk youth programs, 102,443 USD)
2019 Agnese Nelms Haury Program (Sky School K-6 teacher professional development, 79,104 USD)
2017 The North Face Explore Fund (15,000 USD, for Sky School programs)
2014 White House ‘Champion of Change’ - environmental stewardship and conservation

SPONSORED FELLOWSHIPS

2021 UC Berkeley SPUR award (as faculty mentor, to E. Xie, 3,000 USD)
2021 UC Berkeley URAP award (as faculty mentor, to D. Chen, 3,500 USD)
2021 Ford Foundation Postdoctoral Fellowship (as faculty mentor, to R. Cruz, 50,000 USD)
2020 NSF Graduate Research Fellowship (as faculty mentor, to E. Carroll, ~100,000 USD)
2020 NSF Postdoctoral Research Fellowship in Biology (as faculty mentor, to R. Cruz-de Hoyos, ~170,000 USD)
2018 Carlsberg Foundation Fellowship (as faculty mentor, to L. Iversen, ~200,000 USD)

INVITED PRESENTATIONS

(rescheduled) “TBD”, NASA Jet Propulsion Laboratory (Carbon Club)
06/23 “Predicting and prioritizing species coexistence”, Gordon Research Conference on predictive ecology
05/23 “Monitoring management impacts on aspen genetics”, Seminar on Aspen Management - Best Practices and Relevant Science (US Forest Service)
05/23 “Promoting anti-racist teaching practices through communities of practice”, Center for Teaching and Learning Conference (UC Berkeley)
04/23 “Remote sensing of aspen genetics”, Spruce Beetle Epidemic and Aspen Decline Management Response (SBEADMR) and Taylor Park Vegetation Management (Taylor Park EA) Annual Stakeholder Meeting (US Forest Service)
02/23 “Why are there so many triploid aspen if they are sterile?”, Polyploidy Webinar
11/22 “Genomic and remote sensing approaches to understanding climate impacts on quaking aspen”, Northern Arizona University
07/22 “Safe fieldwork for everyone: individual and institutional responsibilities”, Cedar Creek Ecosystem Reserve
01/22 “Remote sensing of cytotype and its consequences for canopy damage in quaking aspen”, University of California at Davis
09/21 “Remote sensing of genotypes, and genotype-dependent mortality in quaking aspen”, International Association of Vegetation Science 63rd annual symposium (**invited plenary speaker**)
09/21 “Remote sensing of genotypes, and genotype-dependent mortality in quaking aspen”, Michigan State University (**EEB department invited speaker**)
03/21 “Does leaf venation reticulation provide damage resistance or resilience to herbivory?”, Center for Tropical Forest Science ForestGEO series, with L. Aparedido
11/20 “Remote sensing of genotypes, and genotype-dependent mortality in quaking aspen”, University of California at Riverside (**graduate student nomination for invited speaker**)
10/20 Zoom: “Remote sensing of genotypes, and genotype-dependent mortality in quaking aspen”, Google Geo 4 Good annual meeting (Public Sector lightning session)
09/20 “Remote sensing of genotypes, and genotype-dependent mortality in quaking aspen” University of California at Berkeley (Jepson Herbarium Botany Lunch)
10/19 “Remote sensing of genotypes, and genotype-dependent mortality in quaking aspen”, Northern Arizona University

- 09/19 “Incorporating small group inquiry into environmental education”, Arizona Association for Environmental Education
- 03/19 “Moving towards predictive large-scale ecology: a plant ecophysiology approach”, University of California at Berkeley
- 02/19 “Moving towards predictive large-scale ecology: a plant ecophysiology approach”, University of California at Santa Barbara
- 02/19 “Moving towards predictive large-scale ecology: a plant ecophysiology approach”, University of Colorado at Boulder
- 01/19 “Moving towards predictive large-scale ecology: a plant ecophysiology approach”, University of Washington
- 10/18 “Limits to predictability in community ecology”, University of British Columbia
- 10/18 “Limits to predictability in community ecology”, Princeton University (**Robert May Lecture on Ecology and Modeling**)
- 10/18 “Limits to predictability in community ecology”, University of Georgia
- 07/18 “Predicting the future: community ecology of aspen forests and alpine screefields”, Rocky Mountain Biological Laboratory
- 12/17 “Scaling up and scaling down trait-environment relationships to improve predictability in community ecology”, University of Copenhagen
- 03/17 “Moving beyond resilience and stability - towards predictability in community dynamics”, Resistance, Recovery and Resilience in Long-term Ecological Systems workshop, Finse, Norway
- 08/16 “Community-scale implications of leaf temperature variation in subalpine and alpine meadows”, Los Alamos National Laboratory
- 07/16 “Why do leaves have loops”, Gordon Research Conference, multiscale vascular plant biology, **invited plenary speaker**
- 06/16 “Towards predictive community ecology”, Rocky Mountain Biological Laboratory
- 04/16 “When does a community’s future depend on its past?”, University of Copenhagen
- 10/15 “Learning from the past: moving beyond short-term thinking on climate change”, Rhodes Trust (Oxford)
- 02/15 “Frontiers in niche-based ecology”, University of Arizona
- 12/14 “Frontiers in niche-based thinking”, University of California - Berkeley
- 09/14 “Why you should care about niche geometry”, Norwegian University of Science and Technology
- 06/14 “Why you should care about niche geometry”, University of Oxford, Martin School
- 10/13 “Assembly of communities in climate space”, Charles University, Prague
- 08/13 “More is different (in ecology)”, INNGE, London
- 02/13 “Niches and the n-dimensional hypervolume”, University of Arizona
- 02/13 “What really happened at the end of the Cretaceous”, University of Puerto Rico
- 10/12 “How to build a time machine using only leaves”, University of Oxford Center for Tropical Forests
- 09/12 “How plants respond to climate change: a functional perspective”, Copenhagen University
- 09/12 “How to build a time machine using only leaves”, Aarhus University
- 02/12 “Skeletons in the forest”, Institute for Tropical Ecosystem Studies, University of Puerto Rico.
- 09/10 “Exploring leaf diversity”, Arizona K-12 Science Teacher Symposium.
- 10/08 “Experiential science education”, Serve Idaho conference.

OTHER PRESENTATIONS

- 05/22 Poster: “Predicting coexistence: learning outcomes via experiments (LOVE)”, Ecological Forecasting Initiative conference
- 05/20 Zoom: “Remote sensing of genotypes, and genotype-dependent mortality in quaking aspen”, USFS – NASA PitchFest
- 12/19 Oral: “Ploidy Level - Environment Interactions Predict Mortality and Recruitment in Quaking Aspen”, American Geophysical Union Centennial Meeting
- 08/17 Oral: “Why do leaf venation networks have loops? Testing hypotheses with an Andes-Amazon elevation gradient”, Ecological Society of America, Portland
- 01/17 Oral: “Predictability in community dynamics”, International Biogeography Society, Tucson

08/15 Oral: "Linking environmental filtering and disequilibrium to biogeography with a community climate framework", ESA Baltimore

07/14 Poster: "Niches and the n-dimensional hypervolume", Gordon Conference, Unifying Ecology

08/13 Oral: "Climate space assembly of communities", INTECOL, London

05/13 Oral: "What really happened at the end of the Cretaceous", Manú National Park, Peru

08/12 Oral: "Leaf venation networks and paleoclimate", ESA Portland.

07/12 Poster: "Leaf venation networks", Gordon Conference, Metabolic Basis of Ecology.

08/11 Oral: "Linking leaf venations to the leaf economics spectrum and paleoclimate", ESA Austin.

10/10 Poster: "Secrets of the naked leaf", University of Arizona student showcase.

09/10 Oral: "Secrets of the naked leaf", Biosphere 2 Science Saturdays.

08/10 Oral: "Ant interaction networks", IUSSI 16th International Symposium.

07/10 Poster: "Leaf venation networks", Gordon Conference, Metabolic Basis of Ecology.

03/10 Oral: "Ant social networks", UAGC symposium.

02/10 Poster: "Information flow in ant social networks", ASU Social Biomimicry conference.

CONVENED SESSIONS

12/23 Session: "Effects of heatwaves on plant functioning: from leaves to ecosystem", American Geophysical Union 2023

MEDIA COVERAGE

01/23 Web: "Teaching: How Can STEM Instructors Show Students They Belong?", Chronicle of Higher Education

11/22 Web: Interviewed in "The science behind of the aroma of fall", PBS News Hour

10/22 Web: "UC Berkeley 'large enrollment' courses to utilize 'anti-racist' curricula, teaching methods", The College Fix

10/22 Print: "UC Berkeley incorporates anti-racist, inclusive strategies in 10 large courses", Daily Californian

05/22 Print: "The Big Picture: Ecological Art", Breakthroughs Magazine

10/20 Print: "Area aspen groves showing signs of stress this autumn", interviewed by Crested Butte News

10/20 Print: "Groves of Gold", interviewed by Telluride Daily Planet

12/19 Web: "What he did last summer", Rocky Mountain Biological Laboratory story featuring our first-generation summer research student

01/19 Web: "From a single leaf to a sea of green: The predictive power of leaves for forest ecology", ASU Now

09/18 Web: "NSF announces new awards for Understanding the Rules of Life", National Science Foundation

03/18 Web: "Diversifying our produce portfolio", ASU Now

09/14 Print: "Meteorite that killed off dinosaurs shaped modern-day plants", Los Angeles Times

09/14 Print: "Asteroid that wiped out dinosaurs also 'reset plant species'", Daily Mail

09/14 Print: "The Meteor That Wiped Out the Dinosaurs Changed Earth's Plant Life, Too", Newsweek

09/14 Web: "Every leaf tells a story", The Guardian

03/14 Web: "Champions of Change" award (coverage by the White House, National Science Foundation, Sierra Club, AmeriCorps, Arizona Daily Star, etc.)

08/13 Print: "Secrets of the naked leaf", Crested Butte News

08/13 Radio: "All about leaves", Nature Notes, KBut radio

05/13 Web: "High School Citizen Scientists' Work May Help Better Climate Models", Nature Labcoat life, Popular Science

03/13 Web: Winning image in BMC Ecology contest featured on The Guardian, CBS News, UK Daily Mail

02/13 TV: "Dry leaves make juicy science" ISTV (for local news nationwide)

11/12 Web: "Costa Rica figures in study to adjust fossil and ecological data", AM Costa Rica

11/12 Web: "Dry leaves make juicy science", Science Daily

09/11 Print: "Myrernes samtale", Ud og Se passagermagasin (DSB Railway, Denmark)

08/11 Web: "Using fossil leaf veins to reconstruct past climates", Nature newsblog

07/11 Web/print: 18th place winner, Nikon Small World photomicrography competition

06/11 TV: "Ant social networks", KVOA TV

06/11 Web: "Myrer springer de kedelige møder over", Videnskab
05/11 Web: "Ants give new evidence for interaction networks", Science Daily
05/11 TV: National Geographic "X-Ray Earth" documentary
12/10 Radio: KUAZ (Arizona Public Media) short feature on leaf networks
11/10 Web: "Lifeblood of leaves" - Science Daily
04/09 TV: "Environmental education", interviewed by KIVI news (Boise, ID)

SERVICE TO ACADEMIC COMMUNITY

Panelist: National Science Foundation – BIO division (2023); National Science Foundation – BIO division (2021); National Science Foundation – BIO division (2018); National Science Foundation – BIO division (2019; ad-hoc reviewer); Department of Energy – Terrestrial Ecosystem Science (2019; declined invitation); National Science Foundation – Evolutionary Processes (2020; declined invitation); NASA (2023; declined invitation).

Proposal Reviewer: Comisión Nacional de Investigación Científica y Tecnológica (Chile), Marsden Fund (New Zealand), National Science Foundation (USA), National Center of Science and Technology Evaluation (Kazakhstan), Strasbourg Institute of Advanced Study, United Kingdom Research and Innovation (several Councils, primarily Natural Environment Research Council), Western Alliance to Expand Student Opportunities.

Associate Editor: *Global Ecology and Biogeography* (2018 – current). Declined invitations to edit for *Ecological Monographs* (2022) and *Ecological Applications* (2023).

Journal Reviewer: American Journal of Botany, American Naturalist, Annals of Botany, Animal Behaviour, Annual Review of Ecology Evolution & Systematics, BMC Plant Biology, BMC Bioinformatics, Ecography, Ecology, Ecology & Evolution, Ecology Letters, Evolution, Global Change Biology, Global Ecology and Biogeography, International Journal of Tropical Ecology, Journal of Applied Ecology, Journal of Ecology, Journal of Plankton Research, Journal of Plant Ecology, Journal of Vegetation Science, Nature Ecology & Evolution, New Phytologist, PLoS Biology, PLoS One, Oikos, Proceedings of the Royal Society B, Proceedings of the National Academy of Sciences, Science, Scientific Reports, Tree Physiology, Trees – Structure and Function, Trends in Ecology and Evolution.

Journal editor (declined): *Forests*, *Frontiers in Forests and Global Change*, *Ecological Monographs*

Evaluation board: Norwegian University of Science and Technology (2020 Faculty search, ecosystems modelling)

Software development: (2014 – current) I write and maintain the *hypervolume* R package for niche/functional diversity analyses. The package is widely used by others and underlies analyses in 60+ publications in journals including *Nature*, *Ecology Letters*, and *Proceedings of the National Academy of Sciences*.

SERVICE TO UC BERKELEY

ESPM seminar series co-coordinator (fall 2023)

Anti-racism summer learning community (2022)

Equity, Inclusion, and Diversity (EID) committee; lead, syllabus working group (2020 – 2023)

Faculty Oversight Committee, Geospatial Innovation Facility (2020 – present)

Contributions to Discovery departmental proposal (2020)

Curator of macroecology, University and Jepson Herbaria (2020 – present)

ESPM social committee faculty representative (2020)

ESPM faculty Panelist, “Summer in the New Normal” (May 2020)

SERVICE TO ASU

Member, ASU Computational Life Sciences program (2019-2020)

Host, ASU Open Door outreach event (2019)

SERVICE TO PUBLIC

Food Not Bombs. 2020 – present. Volunteer for food justice organization serving meals to primarily homeless community members in East Bay of San Francisco. Collect food donations, cook meals, and serve meals.

Rocky Mountain Biological Laboratory. 2020 – present. Board liaison on diversity issues, and member/coordinator of community diversity committee (2019 – present).

Western Alliance to Expand Student Opportunities, Reviewer (2018 – 2019)

Maricopa County Parks and Recreation. 2019–2021. Natural Resource Plan Steering Committee, Member (climate change).

UC Botanical Garden and Richmond High School. 2022. Hosted concerts at both venues with original music by renowned computer Marcus Norris and art by Juniper Harrower; also carried out outreach work in biology classrooms.

Rocky Mountain Biological Laboratory. Gothic, CO. 2015–2019. Co-organized and curated annual community art show integrating scientific perspectives on natural environments.

Inspiring Connections Outdoors (Sierra Club Foundation). Tucson, AZ. 2009 - 2014. Led outdoor trips for school and refugee groups to promote healthy lifestyles and environmental awareness.

Biosphere 2. Oracle, AZ. 2010 - 2011. Conducted science outreach programs, gave public lectures and teacher workshops, and developed museum displays.

Sky Island Alliance. Tucson, AZ. 2009 - 2014. Field volunteer for regional conservation projects.

Heartland Hunger & Resource Center. McCall, ID. 2008-2009. Arranged weekly food donations to food bank.

Expanding Your Horizons. Swarthmore, PA and Tucson, AZ. 2006-2009. Co-led workshops for annual conference for middle school-age girls interested in science.

TEACHING AT UNIVERSITIES

Spring 2023 (UCB)

BIO 1B – Introductory biology, ecology section. ~600 undergraduate students (co-taught; also added anti-racist pedagogy modules to lab instructor weekly preparation sessions).

IB/ESPM 153 – Introductory ecology. ~70 students (co-taught).

Fall 2022 (UCB)

DeCal – “Fruits of the World”. Faculty sponsor.

DeCal – “TreeCal: Tree Identification & Ecology”. Faculty sponsor.

Spring 2022 (UCB)

BIO 1B – Introductory biology, ecology section. ~600 undergraduate students (co-taught).

IB/ESPM 153 – Introductory ecology. ~70 students (co-taught).

Spring 2021 (UCB)

BIO 1B – Introductory biology, ecology section. ~600 undergraduate students, delivered remotely (co-taught).

Fall 2018 (ASU)

BIO 423 – Population and community ecology. 28 undergraduate, 7 graduate students. Included fieldwork components and training in modern statistical analysis methods.

BIO 598 – Effective writing and communication skills. 6 graduate students. Provided training in oral presentations, paper writing, and grant writing.

Spring 2019 (ASU)

BIO 320 – Fundamentals of ecology. ~150 undergraduate students.

BIO 423 – Population and community ecology (plus lab section). ~40 students.

2010-2011 (University of Arizona)

IS 495 – Led lectures, laboratory activities, and directed readings for students on integrated science learning.

2007-2008 (Swarthmore College)

PHYS 120 - Developed and taught seminar on the physics of biological systems. Also led twice-weekly problem sessions for introductory classes.

TEACHING AT K-12 LEVEL

University of Arizona Sky School. Mt. Lemmon, AZ. 2011 - present. Founded inquiry-based outdoor science school for Arizona K-12 students. We serve predominantly low-income public schools. We serve 1000+ students per year over 15,000+ student contact-hours.

Miles Exploratory Learning Center. Tucson, AZ. 2011-2012. Co-taught four middle school science classes for a full school year via NSF GK-12 program (BioME). Focused on ecology and climate curriculum. Published a peer-reviewed study with middle school co-authors.

McCall Outdoor Science School / AmeriCorps. McCall, ID. 2008 – 2009. Taught environmental science and community/leadership skills to Idaho K-12 public school students through residential and outreach programs. Developed curricula and managed up to 14 instructors. Co-led summer teacher institute and Upward Bound programs for NSF EPSCoR program. Taught summer Junior Rangers programs for Ponderosa State Park.

MENTORING

Postdoctoral researchers

Luiza Aparecido (ASU, from Brazil) – 2018 – 2020.

Pierre Gaüzère (ASU, from France) – 2018 – 2020.

Lars Iversen (ASU, from Denmark) – 2018 – 2020. (Carlsberg Foundation international mobility fellow)

Ilaine Matos (ASU, from Brazil) – 2019 – present.

Roxanne M. Cruz-de Hoyos (UC Berkeley) – 2020 – present (NSF Postdoctoral Research Fellow in Biology).

Bradley Posch (Desert Botanical Garden / UC Berkeley) – 2023 – present

PhD students

Mickey Boakye (Berkeley, from Ghana) – 2018 – present.

Erin Carroll (Berkeley) – 2020 – present.

Courtenay Ray (Berkeley) – 2017 – 2023.

PhD committee

Grey Arena (UCB, main supervisor T. Dawson) – 2022 - present

Michael Lim (UCB, main supervisor C. Tomlin) – 2022 – 2023.

Anaid Cardenas Navarette (UCB, main supervisor O. Razafindratsima) – 2022 – present

Veronarindra Ramananjato (UCB, main supervisor O. Razafindratsima) – 2022 – present.

Kari Norman (UCB, main supervisor C. Boettiger) – 2020 – 2022.

Natalie Melkonoff (ASU, main supervisor K. Hultine) – 2019 – present.

Sina Nassiri (U Akron, main supervisor N. Mahabadi) – 2022 – 2023.

Timothy Ohlert (UNM, main supervisor S. Collins) – 2020 – 2022.

Fern MacDougal (UCB, main supervisor P. Fine) – 2021 – 2022.

Katherine Weiss (ASU) – 2018 – 2019.

Qualifying exam committee

Rose Mohammadi (UCB, main supervisor A. Ruhi) – 2022 – 2023

Freddy Gutierrez (UCB, main supervisor R. Gillespie) – 2022 – 2023

Anaid Cardenas Navarette (UCB, main supervisor O. Razafindratsima) – 2022

Veronarindra Ramananjato (UCB, main supervisor O. Razafindratsima) – 2022

Grey Arena (UCB, main supervisor T. Dawson) – 2021 - present

Marcus Lapeyrolerie (UCB, main supervisor C. Boettiger) – 2021 – 2022.

Jenn Wagner (UCB, main supervisor C. Looy) – 2020-2021.

Fern MacDougal (UCB, main supervisor P. Fine) – 2020-2021.

Xinchen Lu (UCB, main supervisor T. Keenan) – 2021.

Masters' thesis students

Carolyn Flower (Arizona State University) – 2017 – 2019. “Food plant biogeography of the Sonoran Desert”

Jolanta Rieksta (Norwegian University of Science and Technology, from Latvia) – 2017-2018.

Clarke Knight (University of Oxford) – 2016, main supervisor – **thesis awarded distinction**: “Influence of climate on North American pollen assemblages since the Last Glacial Maximum”
Jarome Ali (Imperial College London, from Trinidad) – 2016, co-supervisor – **thesis awarded distinction**: “Geometry of the avian hypervolume: threatened species are morphologically distinct and functionally unique”
Andréa Davrinche (University of Oxford, from Reunion / France) – 2016, co-supervisor: “Herbivory and thermoregulation in a temperate deciduous forest”

Bachelors' thesis students

Aunnesha Bhowmick (UCB) – 2022 – 2023, with R. Cruz as co-mentor
Megan Wu (UCB) – 2022 – 2023, with E. Carroll as co-mentor
Jason To (UCB) – 2021 – 2022, with M. Boakye as co-mentor
Emily Xie (UCB) – 2021 – 2022, with C. Ray as co-mentor
Nicole Smith (University of Michigan) – 2020 – 2021 – with R. Cruz as co-mentor
Orlando Rios Cortes (University of Puerto Rico) – 2020 – 2021 – with M. Boakye as co-mentor
Martha Ryan (Arizona State University Barrett Honors College) – 2019 – 2020 – with L. Aparecido as co-mentor
Miguel Duarte (Arizona State University) – 2019 - 2020 – with L. Aparecido as co-mentor

CRS undergraduate advisees

Jacqueline Ramos (2022 – present)
Amy Johnson (2023 – present)
Amy Tang (2023 – present)

Summer undergraduate students / community college research students / teachers

Bella Banka (non-traditional student) – 2021, with E. Carroll as main supervisor
Gavin Belfry (University of Tennessee) – 2020, main supervisor, with C. Ray as co-supervisor
Nicole Smith (University of Michigan) – 2020, main supervisor, with C. Ray as co-supervisor
Orlando Rios (University of Puerto Rico) – 2020, NSF REU, with M. Boakye as main supervisor
Caroline Pechuzal (Amphi School District, Arizona) – 2020, NSF RET participant, with I. Matos as main supervisor
Connie Webb (Western Washington University) – 2019, main supervisor
Dillon Sapena (Montana State University) – 2017, main supervisor
Gavin Belfry (University of Tennessee) – 2019, main supervisor, with C. Ray as co-supervisor
Jake Gerber (Furman University) – 2018, main supervisor, with C. Ray as co-supervisor
Savannah Troy (University of Texas) – informal employment in 2018, 2019
Jordan Stark (Skidmore College) – 2015, co-supervisor
Lake Crawford (Kansas University) – 2015, main supervisor
[Marco Castaneda \(East Los Angeles College\)](#) – 2017, main supervisor
[Marco Castaneda \(East Los Angeles College\)](#) – 2018, main supervisor (REU award)
Richard Forbes (Colorado College) – 2015, co-supervisor
[Sabastian Escobar \(San Bernadino Valley College\)](#) – 2016, main supervisor
Rebecca Lehman (Colorado College) – 2015, project co-supervisor

Research / lab project students, UCB

2022

Daniel Chen
Satvik Sharma
Seenu Madhavan
Haley Grimmer, with I. Matos as main supervisor
Jason To, with M. Boakye as main supervisor
Emily Xie, with C. Ray as main supervisor

2021

Daniel Chen

Satvik Sharma
Seenu Madhavan
Haley Grimmer, with I. Matos as main supervisor
Jason To, with M. Boakye as main supervisor
Emily Xie, with C. Ray as main supervisor

2020

Daniel Chen
Satvik Sharma
Seenu Madhavan
Hailey Park, with I. Matos as main supervisor
LeeDar Sneor, with I. Matos as main supervisor
Brigitte Jaramillo, with C. Ray as main supervisor
Emily Xie, with C. Ray as main supervisor
Haley Grimmer, with I. Matos as main supervisor
Natalie Vuong, with I. Matos as main supervisor
Kristin Sobschak, with M. Boakye as main supervisor
Orlando Rios, with M. Boakye as main supervisor

Research / lab project students – University of Arizona

Alberta Chaj (University of Arizona) - 2014
Chelsea Powers (Tucson High Magnet School) - 2010
Courtney Magness (University of Arizona) – 2011
Damian Alzua (Tucson High Magnet School) – 2010
Daniel Wolf (University of Arizona) - 2010
David Kahler (University of Arizona) – 2012
Elisabeth Bergman (University of Arizona) - 2014
Elise Boyle (University of Arizona) - 2014
Jessie Rebl (University of Arizona) - 2014
John Lacson (University of Arizona) - 2012
Katherine Quispe Huaypar (Universidad Nacional de San Antonio Abad del Cusco) - 2013
Kayla Lauger (University of Arizona) - 2010
Lindsey Parker (University of Arizona) - 2011
Matthew Belheir (University of Arizona) – 2014
Milan Curry (University of Arizona) – 2010
Zoe Mendoza (University of Arizona) – 2014
Nathan May (University of Arizona) - 2012
Nicolle Ioakem (University of Arizona) - 2012

Research / lab students – Arizona State University

Crystal Suazo (Arizona State University) – 2018-2019, with L. Aparecido as main supervisor
Deidra Johnson (Arizona State University) – 2018-2019, with C. Ray as main supervisor
Ivanna Caspeta (Arizona State University - 2019, with P. Gaüzère as main supervisor
Madison Lusk (Arizona State University) - 2019, with C. Ray as main supervisor
Miguel Duarte (Arizona State University) – 2018-2019, with L. Aparecido as main supervisor
Noah Weakly (Arizona State University) - 2018, with C. Ray as main supervisor
Otis Clyne (Arizona State University) - 2018, with C. Ray as main supervisor
Sabrina Woo (Arizona State University) – 2018-2019, with L. Aparecido as main supervisor
Giovanni Bermudez - 2019, with M. Boakye as main supervisor
Eliana Danowski-Underiner – 2019, with I. Matos as main supervisor
Shama Joshi - 2019, with I. Matos as main supervisor
Nikole Awbery - 2019, with I. Matos as main supervisor

LeeAnn Huang - 2019, with I. Matos as main supervisor
Cecina Babich Morrow (Kenyon College) – 2016

Lab visitors

Maya Zomer (Centro de Investigaciones sobre Desertificación) – 2022
Robert Griffin-Nolan (Santa Clara University) – 2022
Emily Guevara (Pontificia Universidad Católica de Ecuador) – 2019
Kevin Sartori (Université de Montpellier) – 2018-2019

ESA SEEDS mentoring

Angelique Rosa Marin (University of Puerto Rico Bayamon) – 2017

FIELD EXPERIENCE

Ecuador – Yasuní National Park – leaf ecophysiology and canopy sampling with international team.
Panama – San Lorenzo – canopy crane operations and ecophysiology with international team.
Gabon – Lopé National Park – assisted with fieldwork to collect plant functional traits in two forests with French- and English-speaking team.
Malaysia – Sabah, Borneo – led fieldwork temporarily for large international project on tropical forest functioning under land use change with Malaysian- and Spanish-speaking field team.
Peru – eastern Andes – led leaf venation work for large international project on tropical forest carbon fluxes and trained a Spanish-speaking field team. Primarily camping in remote areas.
Hawaii – Big Island, Maui, Kauai – planned and led fieldwork to collect functional traits for a range of threatened and endangered Hawaiian silversword alliance species.
Costa Rica – western slopes – field team member for botanical surveying expedition along an elevation gradient. Conducted tree/liana transects and collected voucher material in remote areas.
Panama – Barro Colorado Island – field team member for NSF Macrosystems project. Set up permanent plots, collected functional traits, managed data.
Puerto Rico – El Yunque – field team member for NSF Macrosystems project. Set up permanent plots, collected functional traits, managed data.
Norway – Dovre mountains – seedling surveys and carbon flux measurements in heaths and meadows.
Colorado - high Rockies – led fieldwork in montane systems. Conducted carbon fluxes, plant censuses, functional trait collection. Extensive backcountry camping in alpine areas.
Oregon – Andrews Forest – surveyed woody debris and fish populations in streams.
Arizona – various locations – extensive hiking and botanizing.

LANGUAGES

Spoken/written: English (native), Spanish (advanced), French (beginner), Mandarin Chinese (beginner), Danish (beginner), Norwegian (beginner), Malay (some limited phrases)
Computer: R, MATLAB, C, C++, Objective-C, Java, Python

POPULAR SCIENCE PHOTOGRAPHY

06/23 *New Phytologist* – journal cover image
03/18 *Journal of Biogeography* – journal cover image
01/18 *New York Times* – image for *Trilobites* article on marmots
12/15 *Journal of Ecology* – journal cover image
11/15 British Ecology Society photo contest – highly commended
11/14 British Ecology Society photo contest – overall-runner up
07/14 *BMC Ecology* image competition – winner, landscape ecology section
03/13 *UA Eye on the Environment* competition – people's choice and best student award.
12/13 *Ecology Letters* – journal cover image
11/13 AIBS / *BioScience* magazine – Faces of Biology contest, 2nd place
09/13 Colorado Native Plant Society: 1st prize, native plant photography competition

09/13 UA Institute of the Environment annual report – cover image
 08/13 Colorado Native Plant Society – winner, 2013 photo contest
 03/13 Rocky Mountain Biological Laboratory - spring newsletter cover image
 02/13 *BMC Ecology* image competition - overall runner-up + 3 highly commended images
 12/12 *Methods in Ecology and Evolution* – journal cover image
 08/12 Image featured in The Sierra Club Foundation's annual report (2011)
 08/12 ESA EcoVision competition - 2nd place
 07/12 Rocky Mountain Biological Laboratory - summer e-newsletter cover image
 10/11 Rocky Mountain Biological Laboratory - fall newsletter cover image
 09/11 Nikon *Small World* photomicrography competition - 18th place
 04/11 UA *Eye on the Environment* competition - Science for Society award.

POPULAR SCIENCE WRITING

Blonder, B. Next generation of environmental conservationists. www.whitehouse.gov/champions (2014).
Blonder, B. Volcanes e islas en el cielo. *Mundo Nuestro* (2014).
Blonder, B., Morueta-Holme, N. En skov - eller bare et træ? *Vilde evolutionshistorier* - www.evolution.dk (2011).
Blonder, B. Teaching K-12 fluid dynamics: the physics of flow. *APS Forum on Education Newsletter* (Summer 2009).
Blonder, B. Natural curiosities. www.benjaminblonder.org (2010 - present; updated approximately weekly)

OTHER RESEARCH EXPERIENCE

Eco-Informatics Summer Institute, H.J. Andrews LTER. 2008. Field survey and analysis for stream ecology project studying the effect of woody debris on channel morphology and fish habitat.
The Ecosystems Center, Marine Biological Laboratory. Woods Hole, MA. 2008-2009. Climate modeling and biogeochemical cycling externship.
Swarthmore College Department of Physics. Swarthmore, PA. 2007. Built a confocal microscope used for fluorescence correlation spectroscopy. Investigated fluidity of biological membranes.
REU, Mellon Institute, Carnegie Mellon University. Pittsburgh, PA. 2006. Studied dye-binding antibodies as fluorescent biolabels.
REU, Rowland Institute, Harvard University. Cambridge, MA. 2005. Developed surface plasmon resonance-based biosensors with novel geometries and surface enhancements.

PROFESSIONAL SOCIETY MEMBERSHIPS

British Ecological Society
 International Biogeography Society
 Colorado Native Plant Society
 Ecological Society of America
 Arizona Association for Environmental Education
 Next Generation Sonoran Desert Researchers

TRAININGS AND CERTIFICATES

01/22 Grow Today Part One (Berkeley People Management), UC Berkeley
 03/21 Certification in wilderness first aid (Sierra Rescue)
 05/19 Effective college instruction (25-module course), Association of College and University Educators (ACUE)
 11/16 Challenge of science leadership (3 days), Barefoot Thinking (Oban, Scotland)
 08/09 Certificate in environmental education (1-year), University of Idaho