**Megan K. Sullivan**

Yale School of Forestry and Environmental Studies

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**Education:**

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| Expected: 2023 | Ph.D. Candidate | Yale School of Forestry and Environmental Studies, New Haven, CT. Advisors: Liza Comita and Simon Queenborough |
| 2014 | B.S. with Research Distinction | Department of Ecology, Evolution, and Organismal Biology, The Ohio State University, Columbus, OH |
| 2010-11 | No degree | Scientific illustration, Cleveland Institute of Art, Cleveland Ohio |

**Professional Experience:**

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| 2017-present | Project Manager | Yale School of Forestry and Environmental Studies, New Haven, CT & Institut de Recherche en Ecologie Tropicale, Libreville, Gabon |
| (all duties performed in both English and French)* Exploring the effects of logging on a central African forest by designing and setting up a network of embedded seedling, sapling, and adult tree vegetation plots across a chronosequence of logged forest & unlogged forest in a logging concession in northwestern Gabon.
* Collaborated with international researchers from the Institute of Tropical Ecology Research (IRET) & the National Herbarium of Gabon to put together a field team to set up plots, identify tree species, and take herbarium samples for documentation; together carrying out (up to) month-long backpacking trips into isolated areas to complete plot setup.
* Trained a field team of six people in project methodology.
* Mentored two Gabonese master’s students from the National School of Water and Forests (ENEF); met 1-2 times weekly for 3 months, including a week-long field experience at the end of the internship. Focused on research project development, field methods, database creation & data management, and introductory programming skills in R.
* Managed a $60,000+ project budget
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| Jun–Dec 2015 | Project Manager | Duke University/Ipassa Research Station, Makokou, Gabon |
| (all duties performed in both English and French)* Responsible for the day-to-day running of Duke University presence at Ipassa, including (1) the year-round Duke-Ipassa research team, (2) the team of local guides, (3) American & Gabonese undergraduate and graduate students, and (4) coordination with local managers of Duke’s Community Wildlife Project, a social science experiment and parabiologist training project
* Trained 8 local guides and 4 international research assistants in project methodology
* Collaborated in the design of long-term vegetation plots and created a monitoring protocol
* Created and ran a $12,000 monthly budget and paying the salaries of 25 local employees
* Coordinated logistics for all researchers at the research station
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| Jan-May 2015 | Field Researcher | Duke University/Ipassa Research Station, Makokou, Gabon |
| * Conducted transect censuses; identified central African animals by sight, sound, and cryptic evidence (tracks, nests, scat)
* Set up vegetation plots around fruiting trees commonly visited by elephants to quantify the effect of elephant presence on the plant community
* Set up elephant exclosures – 25x25 m^2 plots surrounded by heavy-duty tension straps that successfully kept out elephants, then designed and implemented a protocol for censusing the vegetation community within elephant and control plots, with the intent of using long-term monitoring to compare the effect of elephants on seedling regeneration and establishment
* Designed and laid out a 1-hectare vegetation plot, surveyed and measured the floristic community
* Designed and constructed animal exclosures to measure the varying effects of rodents, small mammals, large mammals, and elephants on seedling regeneration
* Constructed seed traps and monitored seed fall within a 1-ha plot once per week for ~ 6 months
* Identified 100+ tree species based on fruits/seeds from seed traps
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| May-Aug 2014 | Lead Technician | Northern Arizona University School of Forestry/USFS Flagstaff, AZ |
| * Trained a USFS intern in basic forest ecology methods
* Collected tree cores for a provenance study analyzing climatic adaption of trees
* Collected and analyzed plot data for a regeneration study, looking at the effects of abiotic variables on tree growth and regeneration
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| Mar-May 2014 | Research Technician | Evolution, Ecology, and Organismal Biology Department, The Ohio State University, Columbus, OH |
| * Created a database of several leaf traits for herbarium specimens of 800+ tropical tree species from the Brazilian Cerrado; analyzed how leaf traits vary with respect to climate
* Analyzed, wrote up, and published results
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| Jun 2013 - Mar 2014 | Research Technician | Barro Colorado Island, Smithsonian Tropical Research Institute, Panama & Evolution, Ecology, and Organismal Biology Department, The Ohio State University, Columbus, OH |
| * Collected, weighed, and sterilized seeds and collected and sterilized soil for a shadehouse experiment to explore the effect of genetic relatedness on the strength of CNDD interactions within a particular species
* Constructed a shadehouse and planted 700+ seeds, monitored germination for 4 weeks
* Designed and carried out a field experiment on seed fate of Virola surinamensis
* Analysis, and write-up of an undergraduate thesis project
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| Fall 2020-May 2013 | Research Technician | Evolution, Ecology, and Organismal Biology Department, The Ohio State University, Columbus, OH |
| * Collected and processed samples and measured data for research investigating gene flow in switchgrass species
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**Fellowships and Awards:**

2018-2023 Lewis B Cullman Joint Yale School of Forestry and Environmental Studies & New York Botanical Garden Fellow

2016-2021 National Science Foundation Graduate Research Fellowship

2013 National Science Foundation Research Experience for Undergraduates Fellowship (PI: Dr. Liza Comita)

**Scientific Publications:**

Vandvik, V., Halbritter, A.H., Yang, Y., He, H., Klanderud, K., Maitner, B.S., Michaletz S., Sun X., Telford R.J., Wang G., Zhang, L., Althuizen I., Henn J., Gya,, R.,Jaroszynska F., Joyce, B.L., Moerland, M.S., Peng A., Ponsac, C., Seltzer L., **Sullivan, M.K.**, Tjendra, J., Xiao, Y., Zhao, X., Enquist, B.J. Plant traits and vegetation data from climate change experiments along a 1000m elevation gradient in Gongga Mountains, China. Scientific Data. 7(1), 1-15.

**Sullivan, M.K.** & Queenborough, SA. INSIGHTS: Precipitation gradients, plant biogeography, and the incidence of drip-tips in Cerrado plant species. *Biotropica*. 52(4), 583-589.

Rosin C, Beals KK, Belovitch MW, Harrison RE, Pendred M, **Sullivan M.K.**, Yao N, Poulsen JR. Assessing the effects of elephant foraging on the structure and diversity of an Afrotropical forest. *Biotropica*. 52(3), 502-508.

**Non-academic writing:**

Co-Chairs' Summary Report: Democratic Republic of the Congo (DRC) Land Use Dialogue (LUD) – Idiofa, Mangai Landscape ([theforestsdialogue.org](https://theforestsdialogue.org/dialogue/mangai-landscape-land-use-dialogue)). 2019 Oct 28.

Yale School of Forestry and Environmental Studies News (US): Gabon ‘Dialogue’ Examines Challenges Of Deforestation-Free Development ([environment.yale.edu/news](https://environment.yale.edu/news/article/forest-dialogues-examines-challenge-of-deforestation-free-development-in-gabon/)). 2018 Nov 28.

The Plain Dealer (US): Americans aren't quitters - stay in the Paris climate-change agreement, President Trump (Opinion). ([cleveland.com/opinion](http://www.cleveland.com/opinion/index.ssf/2017/05/americans_arent_quitters_-_sta.html)). 2017 May 9.

**Research Grants:**

 **External:**

2019 *Ecology and conservation of tropical forests in Central Africa: the ecological consequences and long-term sustainability of selective logging*. Garden Club of America: GCA Award in Tropical Botany. ($5000)

2018 *Seedling ecology in a dynamic ecosystem: using selective logging as a natural experiment.* Linnean Society: Dennis Stanfield Memorial Fund. (£1500)

 **Internal:**

2020 *Detecting changes to biodiversity mechanisms in selectively logged forests using seedling dynamics.* Yale Institute for Biospheric Studies (YIBS): Small Grant Doctoral Dissertation Improvement Award. ($5000)

2020 *Using functional trait data to examine community assembly patterns and functional shifts in an Afrotropical forest*. Cullman Fellow Post-Candidacy Research Award. ($5000)

2020 *Detecting changes to biodiversity mechanisms in selectively logged forests using seedling dynamics.* Tropical Resource Institute: Endowment Fellowship. ($8000)

2019 *Seedling ecology in an Afrotropical forest: selective logging as a natural experiment in Gabon.* Council on African Studies: Lindsay Fellowship for Research in Africa. ($3000)

2018 *Impacts of selective logging on abiotic and biotic factors that determine seedling regeneration and recruitment in a Congo Basin tropical forest*. MacMillan Center for International Studies: International Dissertation Research Fellowship. ($15,000)

2018 *Examining impacts of selective logging on Afrotropical forest regeneration*. New York Botanical Garden: Cullman Fellow Pre-Candidacy Research Award. ($5000)

2018 *Examining impacts of selective logging and hunting on forest regeneration in the Congo basin.* Tropical Resource Institute: Endowment Fellowship. ($5000)

2017 *Effects of selective logging on Afro-tropical forests and implications for sustainability*. Tropical Resource Institute: Endowment Fellowship. ($5000)

2017 *Effects of selective logging on Afro-tropical forests and implications for sustainability*. Yale Institute for Biospheric Studies (YIBS): Small Grant Doctoral Pilot Award. ($3000)

2017 *Effects of selective logging on Afrotropical forests: biodiversity, function, & sustainability.* YIBS: RFP Grant. ($4500)

**Oral Presentations:**

2021 Sullivan, MK. *Selective logging in an African tropical forest*. Yale School of the Environment, March Confluence Research Series (webinar), oral presentation.

2020 Sullivan, MK. *Impacts of selective logging in Central African forests.* Sussex Plant Biology Symposium (webinar), oral presentation.

2019 Sullivan, MK. & Queenborough SA. *Macroecological patterns of leaf size, shape, and function in the cerrado*. Joint Meeting of the Society for Tropical Ecology (gtö) and the British Ecological Society Tropical Ecology Group (BESTEG), poster.

2018 Sullivan, MK. *Effects of logging on forest regeneration in central African rainforests*, Yale FES Environmental Research Conference, Yale School of Forestry and Environmental Studies, oral presentation.

2017 Sullivan, MK. *Effects of selective logging on Afro-tropical forests and implications for sustainability*. Yale FES Environmental Research Conference, Yale School of Forestry and Environmental Studies, oral presentation.

2017 Sullivan, MK. *Effects of selective logging on Afro-tropical forests and implications for sustainability*. Greeley Research Roundup. Yale School of Forestry and Environmental Studies, oral presentation.

2014 Sullivan, MK. *Ponderosa pine seedling density and survival as a function of stand characteristics*. Fort Valley Experimental Research Symposium, Fort Valley Experimental Research Station, oral presentation.

2014 Sullivan, MK. *Drivers of reproductive success in a tropical tree species*. OSU Natural and Mathematical Sciences Forum and Denman Forum, Ohio State University, poster.

**Teaching Experience:**

*Teaching Fellow:*

F&ES717 - Tropical Field Ecology (2020)

F&ES768 - Pests, Pathogens & Parasites (2018)

*Trainings & certificates:*

January 2021 Moderation and facilitation training, *YSE Professional Communication Center*.

Summer 2020 The theory and practice of online teaching, *Yale Poorvu Center for Teaching and Learning*, short course.

2020-2021Advanced teaching workshops, *Yale Poorvu Center for Teaching and Learning*, completed 10 ATWs as a part of the Yale Poorvu Center’s requirements for the “Certificate of College Teaching Preparation for Graduate Students.”

**Mentorship:**

2020-2021 Rahayu Adzhar, EEB Mentor Match Program

2020: Kitty Kan, Yale undergraduate, for her FRANKE Fellowship project.

2019: Manoushka ILAMBI MAYOUNGOU and Temba JUSTE LA MEILLEUR, two Gabonese master’s students from l’Ecole Nationale des Eaux et Forêts, for summer research internships.

**Journal Reviewer:** (since 2018)

Journal of Sustainable Forestry, Ecology and Evolution

**Other Professional Service:**

2021 Planning Committee Member, Panels Team: International Society of Tropical Foresters (ISTF) Conference.

2020-2021 Yale Anti-Racism Nework (YARN) Member: contributed to a call for anti-racist change in the YSE department, presented admissions demographics to the YSE faculty and admissions committee, advocated for increased transparency in faculty hiring processes, suggested updates to the doctoral admissions website to make the application process more accessible, created implicit bias infographics to disseminate to faculty and staff, attended and organized anti-racist training on different topics (e.g. anti-racist pedagogy, fieldwork & identity).

2020-2021 YSE DocComm Member: elected member of the official representation of the PhD student body in the YSE doctoral program: helped to plan social events for the Yale PhD community and worked with YSE admin to address PhD community concerns.

2020 Interim PhD Student Government Member at the Yale School of Forestry and Environmental Studies: co-lead the committee to create a Field Handbook for the department, helped to create Student Bylaws for the new ‘DocComm’ that replaced interim leadership.

2020 Seminar Coordinator, weekly Confluence Seminar Series at the Yale School of Forestry and Environmental Studies.

2020 Planning Committee Member: Logistics Coordinator, the 26th Annual ISTF International Conference.

2019 TFD Representative: Meeting Coordinator, Translator, Co-Chair Summary Reporter, Mangai Landscape Land Use Dialogue, held in Idiofa, DRC and organized by the Forests Dialogue – TFD.

2018 Planning Committee Member: Communications Coordinator, the 34th Annual F&ES Research Day Conference.

2017 TFD Representative: Meeting coordinator, Dialogue on Understanding Deforestation-Free in an African Context, held in Mouila, Gabon and organized by the Forests Dialogue.

2016-2017 Student Activity Council Member, PhD Representative for the Student Life Committee.

2016-2017 Student Interest Group Leader, PhD SIG.

**Public Outreach:**

Spring 2021 – present, *Graduate Research Spotlight Series Coordinator*, Yale Peabody Museum of Natural History. Planning and coordination of public talks from Yale graduate students, highlighting research done with the museum’s collections, plus hosting the live talks over Zoom.

April 2021 *Photographer*, Yale Climate Day, submitted photos and captions for the Yale Climate Day Photo Exhibition.

May 2021 *Science Fair Judge*, New Haven Science Fair, judged fourth grade projects at the New Haven School Science Fair.

Fall 2020 - Spring 2021 *Volunteer Tutor,* Integrated Refugee & Immigrant Services (IRIS) New Haven, tutoring in college-level math & science.

Oct 2020 *Science Battle Event*, Flipped Science Fair at Yale University’s outreach program where scientists give virtual 15-minute talks to middle schoolers and students judge the presentations.

July 2020 *Mentorship Morning* session, Intrepid Museum's Virtual GOALS for Girls Summer Intensive, one of eight mentor panelists talking to grade-school girls from the NYC area girls about working in science & research.

July 2020 *PhD or Research Abroad* session of the *WISAY lunchtime mentoring series*, Women in Science at Yale, co-host with Nicole Bertoletti.

2018-2020 *Peabody Graduate Partner*. Yale Peabody Museum of Natural History. Worked as a volunteer docent and to develop curriculum for grade-school programs.

2019 *Volunteer docent for the* *Capturing Ecology Photographic Competition.* British Ecological Society, helped to run the photo competition and interpret photos for visitors.

2018 *How logging affects species interactions in central African forests*, Next Generation Science Standards for K-12 Teachers, Yale Peabody Museum of Natural History, oral presentation.

2017 *Color change: it's not just for Fall.* Green Cafe, Marsh Botanical Garden at Yale University, oral presentation.

2016 -2017 *Mentor for PlantingScience*. Online. Mentored students via an online platform that connects scientists with high school classes and provided students feedback on scientific experiments.

**Professional Affiliations:**

Association for Tropical Biology and Conservation, International Society of Tropical Forestry, British Ecological Society, Society for Conservation Biology

**Languages:**

English – native speaker, French – working proficiency, Spanish – basic language skills