A. CARLA STAVER

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PROFESSIONAL APPOINTMENTS

2025-	Full Professor, Ecology & Evolutionary Biology, Princeton University
2025-	Affiliate Faculty, High Meadows Environmental Institute, Princeton University
2014-2025	Asst., Assoc., Full Professor, Ecology & Evolutionary Biology, Yale University
2015-2025	Secondary Appointment, Forestry & Environmental Studies, Yale University
2012-2014	Prize Postdoctoral Fellow, E3B, Columbia University
2012	Postdoctoral Researcher, EEB, Princeton University

EDUCATION AND TRAINING

2008-2012	Ph.D. in Ecology and Environmental Biology, Princeton University
2006-2008	M.Sc. in Botany, University of Cape Town (Distinction)
2001-2005	B.A. in Ecology, Evolution, & Environmental Biology, Columbia University

NOTABLE HONORS AND AWARDS

2017	Tansley Medal shortlist from the New Phytologist Trust
2015-2020	Early Career Fellow, Ecological Society of America
2015	Runner up for the Harper Prize from the British Ecological Society
2013	Jasper Loftus-Hills Young Investigator Award, American Society of Naturalists
2012	George Mercer Award, Ecological Society of America
2005-2006	Fulbright US Student Fellowship

GRANTS AND FUNDING

2025-2027	Interdisciplinary approaches for mapping hidden features in high-value landscapes (co-applicant)	
	NSERC NFRF-Exploration (PI Naomi Schwartz, UBC)	Total: $250,000
2025-2030	BoCP-Implementation: US-São Paulo: Fire management for effective biodiversity conservation in Brazilian savannas (PI; co-PI Natashi Pilon, Unicamp)	
	NSF/FAPESP Biodiversity on a Changing Planet	NSF Total: $1,748,722
2023-2025	Paleofire-climate interactions in Africa	$199,000
	Yale Institute for Biospheric Studies (w/ J. Marlon)	
2023-2026	NSF Graduate Research Fellowship to Riley Wadehra	$147,000
2023-2025	Integrating modern and paleo perspectives to disentangle grazer and climate controls on fire activity (PI; co-PI Tyler Faith, U Utah)	$836,720
	NSF Division of Environmental Biology, Ecosystems (Total: $911,403)	
2022-2025	Impact of global change-type drought and heat waves on semi-arid savannas	
	Oppenheimer Memorial Trust (co-I; funding via Oxford University)	$110,000

2023-2024 The whole-ecosystem carbon sequestration potential of savanna ecosystems, and its biodiversity cost (PI; co-PI Yong Zhou, Utah State U) $283,077
Yale Center for Natural Carbon Capture (Total: $300,000)

2022-2024 The trophic ecology of African savanna ecosystems $202,000
Yale Institute for Biospheric Studies (w/ V. Ezenwa, J. Marlon, Total: ~$605k)

2020-2023 Consequences of environmental stochasticity for the spatial dynamics of savanna-forest transitions (Co-PI) $101,109
NSF Mathematical Biology (PI Simon Levin, Princeton, Total: ~$600k)

2018-2023 Scaling Fire Size from Local Process to Continental Pattern (PI) $1,035,000
NSF Macrosystems Biology (Total: $1,035,000)

2016-2019 Spatial Dynamics of Savanna-Forest Boundaries (PI) $250,000
NSF Mathematical Biology (Total: $400,000)

2016-2019 NSF Graduate Research Fellowship to Madelon Case $132,000

2015 Reading the Historical Record of the Mara Using Sediment Cores from the Mara Wetland (Co-PI; PI David Post) $65,641
World Wildlife Fund for Nature

2012-2015 Fire, land use, and the savannization of seasonally dry Amazon forests (Co-PI)
Gordon and Betty Moore Foundation $112,838
Sub-award from Woods Hole Research Center (PI: M. Coe, Total $1,344,453)

SERVICE AND SYNERGISTIC ACTIVITIES

2021-present Steering Committee for the Social-Ecological Observatory for Southern African Woodlands (SEOSAW)

2025-present Mercer Prize selection committee chair, Ecological Society of America

2020-2025 Mercer Prize selection committee member, Ecological Society of America

2021-2024 Associate Director, Yale Institute for Biospheric Studies, Yale University

2021-2024 USGS Powell Center Working Group "*Using a multi-scale approach to synthesize measurements and models of C4 photosynthesis*"

2022-2024 Exhibit development for Peabody Museum of Natural History renovation (including a permanent Grasslands exhibit and temporary Fire exhibit)

2020 Expert Testimony to the U.S. House of Representatives Natural Resources Committee on H.R. 5435 "*American Public Lands and Water Climate Solutions Act of 2019*" and H.R. 5859 "*Trillion Trees Act*" (February 26, 2020) [watch]

2019 Expert Guest on *Al Jazeera, The Stream* "Why is the world on fire?" (November 4, 2019) [watch]

2015-2020 Advisory Board, Global PaleoFire Working Group

Associate Editor: *Journal of Ecology* (2018-2022)

Guest Editor: "Fire: Friend or Foe?" Special Issue of the *African Journal of Range and Forage Science*, February 2022

Reviewer: Many.

Member: Ecological Society of America (ESA), Association for Tropical Biology and Conservation (ATBC), American Geophysical Union (AGU)

TEACHING EXPERIENCE

Directed or co-directed at Yale University:

Fall 2024	Intro Biology: Ecology (BIOL 104)	Enrollment: 104
Fall 2024	Forgotten Grassy Ecosystems (EEB 750)	Enrollment: 5
Fall 2023	General Ecology (EEB 220/520, EVST 223)	Enrollment: 29
Spring 2023	Scientific Writing for EEB (EEB 725)	Enrollment: 13
Fall 2021	Ecosyst. Dyn. of Nature Based Solutions (EEB 862)	Enrollment: 7
Fall 2021	General Ecology (EEB 220/520, EVST 223)	Enrollment: 33
Spring 2021	Plant Ecology (EEB 305/705)	Enrollment: 10
Fall 2019	General Ecology (EEB 220/520, EVST 223)	Enrollment: 42
Fall 2019	Scientific Writing for EEB (EEB 725)	Enrollment: 7
Fall 2018	General Ecology (EEB 220/520, EVST 223)	Enrollment: 29
Fall 2018	Scientific Writing for EEB (EEB 725)	Enrollment: 9
Spring 2018	Plant Ecology (EEB 305/705)	Enrollment: 9
Fall 2017	Scientific Writing for EEB (EEB 725)	Enrollment: 19
Spring 2016	Long Term Temporal Dynamics of Ecosystems	Enrollment: 4
Fall 2015	General Ecology (EEB 220/520, EVST 223)	Enrollment: 52
Spring 2015	The Ecology of Global Change	Enrollment: 7
Fall 2014	General Ecology (EEB 220/520, EVST 223)	Enrollment: 44

Previously:

2014	Tropical Field Ecology, Columbia University
2011-2012	Statistics Tutor (Senior Thesis Writing Group – EEB), Princeton University
2008, 2010	TA, Population and Community Ecology (EEB 321), Princeton University
2006-2009	TA, Field Botany (BOT 309), University of Cape Town

PUBLICATIONS (Staver lab-affiliated postdocs‡, grad students†, and undergrads°, indicated for work initiated while in the Staver lab)

For copies, see my Google Scholar page

1. Karp‡, A.T., J.M. Russell, J.O. Abraham, T. Strydom, and A.C. **Staver**. *Accepted.* Fecal biomarkers in soils record landscape-scale wild herbivore abundance. *Geochemistry, Geophysics, Geosystems*.
2. Brando, P.M., J. Barlow, M.N. Macedo, D. Silvério, J. Ferreira, L. Maracahipes, L. Anderson, D. Morton, A. Alencar, L. Paolucci, S. Jacobs, H. Stouter, J. Randerson, B. Flores, B. Starinchak, M.M. Pires, L. Rattis, D. Armenteras, P. Artaxo, E.M. Ordway, S. Trumbore, A.C. **Staver**, E. Berenguer, I. Oliveiras Menor, L. Leonardo Maracahipes-Santos, N. Potter, M. Uribe. *Accepted.* Tipping points of Amazonian forests: beyond myths and toward solutions. *Annual Review of Environment and Resources.*
3. Ryan, C.M. and A.C. **Staver**. 2025. 'Loss and damage fund' for climate change needs broader remit. *Nature*.
4. Biro†, A., M.Y. Wong, J.M. Lucas, S.A. Batterman, A.C. **Staver**. 2025. Native soil microbes buffer savanna trees against resource limitation but are sensitive to drought. *Journal of Ecology*.
5. Zhou‡, Y., M.F. Case†, and A.C. **Staver**. 2025. Root trait (multi)functionality among savanna trees: progress and challenges. *Journal of Ecology*. https://doi.org/10.1111/1365-2745.70016

6. Pilon, N., *et al.* [including A.C. **Staver**]. 2025. Open letter: There are more than just trees and forests to be conserved and restored. *Plants, People, Planet*. https://doi.org/10.1002/ppp3.10635
7. Maraia, H., T. Charles-Dominique, K. Tomlinson, A.C. **Staver**, L. Jorge, U. Gelin, J. Jancuchova-Laskova, L. Sam, D. Hattas, I. Freiberga, and K. Sam. 2024. Insect herbivory in a South African savanna-forest mosaic: neglected but substantial. *Ecology and Evolution.*
8. Muehleisen, A., N. Schwartz, S. Stump, and A.C. **Staver**. 2024. Rainfall variability and deciduous-evergreen coexistence in tropical forests. *Theoretical Ecology*.
9. Loft, T., A. Cardoso, W.J. Bond, M. Machado, F. Gonçalves, I. Oliveras Menor, A.C. **Staver**, and N. Stevens. 2024. Central Africa's mesic savannas should be conserved, not afforested. *Global Change Biology* 30: e17369.
10. Karp‡, A.T., S. Koerner, G. Hempson, J. Abraham, T.M. Anderson, W.J. Bond, D. Burkepile, J. Goheen, J. Guyton, T. Kartzinel, D. Kimuyu, N. Mohan Babu, T. Palmer, L. Porensky, R. Pringle, M. Ritchie, M. Smith, D. Thompson, T.P. Young, and A.C. **Staver**. 2024. Grazing herbivores reduce herbaceous biomass and fire activity across African savannas. *Ecology Letters* 7: e14450.
11. Del Toro°, I., M.F. Case†, A.T. Karp‡, J. Slingsby, and A.C. **Staver**. 2024. Carbon isotope trends across a century of herbarium specimens suggest CO_2 fertilization of C_4 grasses. *New Phytologist* 243: 2.
12. Biro†, A., M.Y. Wong, Y. Zhou‡, S. Batterman, and A.C. **Staver**. 2024. Nitrogen and phosphorus availability alters tree-grass competition intensity in savannas. *J Ecology* 112: 5.
13. Patterson‡, D., S.A. Levin, A.C. **Staver**, and J. Touboul. 2024. Spatial pattern formation in mesic savannas. *Bulletin of Mathematical Biology* 86: 3.
14. Lenton, T., *et al*. [including A.C. **Staver** as the Savannas/Grasslands sub-chapter lead]. 2023. *Global Tipping Points Report*. For the 28th UN Conference of Parties (peer-reviewed).
15. Aleman, J., A.C. Staver, A. Fayolle, R. Buitenwerf, and S. Ferrier. 2023. Comment on "Limited climatic space for alternative ecosystem states in Africa." *Science* (online only).
16. Davies, R.W., *et al*. [including A.C. **Staver**]. 2023. Precipitation gradients drive high turnover in the world's largest savanna woodland. *Ecography* e06720.
17. Zhou‡, Y., B. Bomfim, W.J. Bond, T.W. Boutton, M.F. Case†, C. Coetsee, A.B. Davies, E.C. February, E.F. Gray, L.C.R. Silva, J.L. Wright, and A.C. **Staver**. 2023. Soil carbon in tropical savannas mostly derived from grasses. *Nature Geoscience* 16: 710–716.
18. Gold°, Z., A.F.A. Pellegrini, T.K. Refsland, R.J. Andrioli, M.L. Bowles, D.G. Brockway, N. Burrows, A.C. Franco, S.W. Hallgren, S.E. Hobbie, W.A. Hoffmann, K.P. Kirkman, P.B. Reich, P. Savadogo, D. Silvério, K. Stephan, T. Strydom, J.M. Varner, D.D. Wade, A. Willis, and A.C. **Staver**. 2023. Greater herbaceous responses to experimental fire in savannas than in forests. *Ecology Letters* 26: 1237-1248.
19. Patterson‡, D., A.C. **Staver**, S.A. Levin, and J. Touboul. 2023. Spatial dynamics with heterogeneity. *SIAM Journal on Applied Mathematics (SIAP)* S225-S248.
20. Karp‡, A.T., K.T. Uno, M.A. Berke, J.M. Russell, C.A. Scholz, J. Marlon, J.T. Faith, and A.C. **Staver**. 2023. Nonlinear rainfall effects on fire activity across the African Humid Period. *Quaternary Science Reviews* 304: 107994.

21. Zhou‡, Y., A.C. Staver, and A. Davies. 2023. Species-level termite methane production rates. *Ecology* 104: e3905.
22. Strömberg, C.A.E. and A.C. **Staver**. 2022. Perspective: The history and challenge of grassy biomes. *Science* 377: 592-593.
23. Zhou‡, Y., A. Biro†, M. Wong, S. Batterman, and A.C. **Staver**. 2022. Fire reduces soil enzyme activity and reorganizes microbially mediated nutrient cycles: a review. *Ecology* 103: e3807.
24. Pletcher, E., A.C. **Staver**, and N. Schwartz. 2022. The environmental drivers of tree cover and savanna-forest mosaics in SE Asia. *Ecography* 2022: e06280.
25. Cardoso‡, A.W., S. Archibald, N. Govender, W.J. Bond, C. Coetsee., M. Forrest, N. Govender, D. Lehmann, L. Makaga, N. Mpanza, J.E. Ndong, F.K. Pambo, T. Strydom, G.D. Tilman, P.D. Wragg, and A.C. **Staver**. 2022. Quantifying the environmental limits to fire spread in grassy ecosystems. *PNAS* 119: e2110364119.
26. Wu‡, C., S. Sitch, C. Huntingford, L.M. Mercado, S. Venevsky, G. Lasslop, S. Archibald, and A.C. **Staver**. 2022. Reduced fire activity due to human demography slows global warming by enhanced land carbon uptake. *PNAS* 119: e2101186119.
27. Hansen, W., A.P. Williams, N.B. Schwartz, K. Albrich, L.M. Kueppers, A. Rammig, C.P.O. Reyer, A.C. **Staver**, and R. Seidl. 2022. Global forests are influenced by legacies of past interannual temperature variability. *Environmental Research: Ecology* 1: 011001.
28. Zhou‡, Y., J. Singh, J.R. Butnor, C. Wigley-Coetsee, P.B. Boucher, M.F. Case†, E. Hockridge, A.B. Davies, and A.C. **Staver**. 2022. Limited increases in savanna whole-ecosystem carbon storage over six decades of fire suppression. *Nature* 603: 445-449.
29. Govender, N., **Staver**, A. C., Archibald, S., Wigley-Coetsee, C., Strydom, T., Humphrey, G., & Kimuyu, D. 2022. Lessons from a century of evidence-based fire management in grassy ecosystems. *African Journal of Range and Forage Science* 39: v–vii.
30. Beckett, H., A.C. **Staver**, T. Charles-Dominique, and W.J. Bond. 2022. Pathways of savannization in a mesic African savanna-forest mosaic after an extreme fire. *J Ecology*.
31. Abraham°, J.E., G. Hempson, J.T. Faith, and A.C. **Staver**. 2022. Seasonal strategies differ between tropical and extratropical herbivores. *J Animal Ecology*.
32. Karp‡, A.T., J.T. Faith, J.R. Marlon, and A.C. **Staver**. 2021. Global response of fire activity to late Quaternary grazer extinctions. *Science* 374: 1145-1148.
33. Xu, L., D. Patterson‡, A.C. **Staver**, S.A. Levin, and J. Wang. 2021. Unifying deterministic and stochastic ecological dynamics via a landscape-flux approach. *PNAS* 118: e2103779118.
34. Zhou‡, Y., M. Tingley, M. Case†, C. Coetsee, G.A. Kiker, R. Scholtz, F.J. Venter, and A.C. **Staver**. 2021. Woody encroachment happens via intensification, not extensification, of species ranges in an African savanna. *Ecological Applications* 31: e02437.
35. **Staver**, A.C., J.O. Abraham, G.H. Hempson, A.T. Karp‡, and J.T. Faith. 2021. The past, present, and future of herbivore impacts on savanna vegetation. *Journal of Ecology* 109: 2804-2822.
36. Abraham°, J.O., Goldberg°, E., J. Botha, and A.C. **Staver**. 2021. Determinants of elephant landscape use are scale dependent. *Ecology and Evolution* 11: 5624-5634.
37. Wu‡, C., S. Venevsky, S. Sitch, L.M. Mercado, C. Huntingford, and A.C. **Staver**. 2021. Historical and future global burned area with changing climate and human demography. *One Earth* 4: 517-530.

38. Pellegrini, A., A. Hein, J. Cavender-Bares, R.A. Montgomery, A.C. **Staver**, F.S. Silla, S.E. Hobbie, and P.B. Reich. 2021. Disease and fire interact to influence transitions between savanna-forest ecosystems over a multi-decadal experiment. *Ecology Letters* 24: 1007-1017.
39. Pellegrini, A., T. Refsland, C. Averill, C. Terrer, A.C. **Staver**, *et al*. 2021. Decadal changes in fire frequencies shift tree communities and functional traits globally. *Nature Ecology and Evolution* 5: 504-512.
40. The SEOSAW partnership [including A.C. **Staver**]. 2021. A Socio-Ecological Observatory for the Southern African Woodlands: challenges, benefits and methods. *Plants, People, Planet* 3: 249-267.
41. Wigley, B.J., *et al* [including Y Zhou‡, A.C. **Staver**]. 2021. Turner Review: A handbook for the standardised sampling of plant functional traits in disturbance-prone ecosystems with a focus on open ecosystems. *Australian Journal of Botany* 68: 473-531.
42. Voysey, M., S. Archibald, W.J. Bond, J.E. Donaldson, A.C. **Staver**, and M. Greve. 2021. The role of browsers in maintaining the openness of savanna grazing lawns. *Journal of Ecology* 109: 913-926.
43. Patterson‡, D., S.A. Levin, A.C. **Staver**, J. Touboul. 2020. Probabilistic foundations of spatial mean-field models in ecology and applications. *SIAM Dynamical Systems* 19: 2682-2719.
44. Aleman, J.C., A. Fayolle, C. Favier, A.C. **Staver**, *et al*. 2020. Floristic evidence for alternative biome states in tropical Africa. *PNAS* 117: 28183-28190.
45. **Staver**, A.C. and G. Hempson. 2020. Seasonal strategies determine population sizes of savanna ungulates. *Science Advances* 6: eabd2848.
46. Goel†, N., E. van Vleck, J. Aleman‡, and A.C. **Staver**. 2020. Dispersal limitation and fire feedbacks explain savanna distributions in Madagascar. *Ecology* 101: e03177.
47. Case†, M.F., J. Nippert, R. Holdo, and A.C. **Staver**. 2020. Root-niche separation between trees and grasses is greater on sandier soils. *Journal of Ecology* 108: 2298-2308.
48. Zhou‡, Y., Wigley, B.J., Case†, M.F., Coetsee, C., and A.C. **Staver**. 2020. Rooting depth as a key woody functional trait in savannas. *New Phytologist* 227: 1350-1361.
49. Goel†, N., V. Guttal, S.A. Levin, and A.C. **Staver**. 2020. The spatial dynamics of savanna-forest distribution change. *The American Naturalist* 195: 833-850.
50. Coetsee-Wigley, C. and **Staver**, A.C. 2020. Grass community responses to drought in an African savanna. *African Journal of Range and Forage Science* (Special Issue) 37: 43-52.
51. Kulmatiski, A., *et al* [including A.C. **Staver**]. 2020. Forecasting semi-arid biome shifts in the Anthropocene. *New Phytologist* 226: 351-361.
52. Case†, M.F., Wigley, B.J., Coetsee-Wigley, C., and **Staver**, A.C. 2020. Could drought disfavor woody encroachers in savanna? *African Journal of Range and Forage Science* (Special Issue) 37: 19-29.
53. **Staver**, A.C., P. Brando, J. Barlow, D. Morton, T. Paine, Y. Malhi, A. Murakami, J. de A. Pasquel. 2020. Thinner bark increases sensitivity of wetter Amazonian tropical forests to fire. *Ecology Letters* 23: 99-106.
54. Daskin‡, J.H., Aires, F., and A.C. **Staver**. 2019. Determinants of tree cover in tropical floodplains. *Proceedings of the Royal Society B* 286: 20191755.
55. Veldman, J.W., *et al.* [alphabetical; including A.C. **Staver**] 2019. Comment on "The global tree restoration potential". *Science* 366: eaay7976.

56. Aleman‡, J., O. Blarquez, H. Elenga, J. Paillard, V. Kimpuni, G. Itoua, G. Issele, and A.C. **Staver**. 2019. Paleo-trajectories of forest savannization in the southern Congo. *Biology Letters* (Special Issue) 15: 20190284.
57. Zhou‡, Y., and A.C. **Staver**. 2019. Enhanced activity of soil nutrient-releasing enzymes after plant invasion: a meta-analysis. *Ecology* 100: e02830.
58. Case†, M.F., Wigley-Coetsee, C., Nzima, N., Scogings, P., and **Staver**, A.C. 2019. Severe drought limits trees in a semi-arid savanna. *Ecology* 100: e02842.
59. Wigley, B.J., A.C. **Staver**, R. Zytkowiak, A. Jagodzinski, and C. Wigley-Coetsee. 2019. Root trait variation in African savannas. *Plant + Soil* 441: 555-565.
60. Hempson, G., S. Archibald, and A.C. **Staver**. 2019. Chapter 10: Fire-browser interactions. In Scogings, P., C Skarpe, and M. Sankaran (eds). *Herbivores and woody plants in savannas*. Wiley and Sons: Chichester.
61. Archibald, S., W.J. Bond, W. Hoffmann, C. Lehmann, A.C. **Staver**, N. Stevens. 2019. Chapter 4: Distribution and Determinants Savannas. In Scogings, P., C Skarpe, and M. Sankaran (eds). *Herbivores and woody plants in savannas*. Wiley and Sons: Chichester.
62. Abraham°, J., G.P. Hempson, and A.C. **Staver**. 2019. Drought-response strategies of savanna herbivores. *Ecology and Evolution* 9: 7047–7056.
63. Li, Q., A.C. **Staver**, S.A. Levin, and W. E. 2019. Spatial feedbacks and the dynamics of savanna and forest. *Theoretical Ecology* 12: 237–262.
64. **Staver**, A.C., G. Asner, I. Rodriguez-Iturbe, S.A. Levin, I. Smit. 2019. Spatial patterning among savanna trees in high-resolution, large-scale data. *PNAS* 116: 10681-10685.
65. Rodriguez-Iturbe, I., Z. Chen, A.C. **Staver**, and S.A. Levin. 2019. Tree clusters in savannas result from islands of soil moisture. *PNAS* 116: 6679-6683.
66. C.L. Dutton, A.L. Subalusky, T.D. Hill, J.C. Aleman‡, E.J. Rosi, K.B. Onyango, K. Kanuni, J.A. Cousins, A.C. **Staver** and D.M. Post. 2019. A 2000-year sediment record reveals rapidly changing sedimentation and land use since the 1960s in the Upper Mara-Serengeti Ecosystem. *Science of the Total Environment* 115: E1336-E1345.
67. **Staver**, A.C., C. Wigley-Coetsee, J. Botha. 2019. Grazer movements exacerbate grass declines during drought in an African savanna. *Journal of Ecology* 107: 1482-1491.
68. **Staver**, A.C. and E. Schertzer. 2018. Fire spread and the issue of community-level selection in the evolution of flammability. *Journal of the Royal Society Interface* 15: 20180444.
69. Case†, M.F. and A.C. **Staver**. 2018. Soil texture mediates tree responses to rainfall intensity in African savannas. *The New Phytologist* 219: 1363-1372.
70. Aleman‡, J.C. and A.C. **Staver**. 2018. Spatial patterns in the global distributions of savanna and forest. *Global Ecology and Biogeography* 27, 792-803.
71. Touboul, J.D., A.C. **Staver**, and S.A. Levin. 2018. On the complex dynamics of savanna landscapes. *PNAS* 115, E1336-E1345.
72. Aleman‡, J.C., M. Jarzyna, and A.C. **Staver**. 2018. Forest extent and deforestation in sub-Saharan Africa since 1900. *Nature Ecology and Evolution* 2, 26-28.
73. Pellegrini, A.F.A., A. Ahlström, S.E. Hobbie, P.B. Reich, L.P. Nieradzik, A.C. **Staver**, B.C. Scharenbroch, A. Jumponnen, W.R.L. Anderegg, J.R. Randerson, and R.B. Jackson. 2018. Fire frequency drives decadal changes in soil carbon and nitrogen and ecosystem productivity. *Nature* 553, 194-198.

74. **Staver**, A.C. 2018. Tansley Insight: Prediction and scale in savanna ecosystems. *New Phytologist* 219: 52-57.
75. **Staver**, A.C., J. Botha, and L. Hedin. 2017. Soils and fire jointly determine vegetation structure in an African savanna. *New Phytologist* 216: 1151-1160.
76. Case†, M.F. and A.C. **Staver**. 2017. Fire prevents woody encroachment only at higher-than-historical frequencies in a South African savanna. *Journal of Applied Ecology* 54, 955–962.
77. **Staver**, A.C., H. Beckett, and J. Graf. 2017. Chapter 3: Long-term vegetation dynamics. In Cromsigt, J., S. Archibald, and N. Owen-Smith (eds). *Savanna Ecology and Management: Conserving Africa's Mega-Diversity in the Hluhluwe-iMfolozi Park*. Cambridge UP: Cambridge.
78. Bond, W.J., A.C. **Staver**, M. Cramer, J. Wakeling, J.J. Midgley, and D. Balfour. 2017. Chapter 9: Demographic bottlenecks and savanna trees. In Cromsigt, J., S. Archibald, and N. Owen-Smith (eds). *Savanna Ecology and Management: Conserving Africa's Mega-Diversity in the Hluhluwe-iMfolozi Park*. Cambridge UP: Cambridge.
79. Archibald, S., H. Beckett, W.J. Bond, D. Druce, A.C. **Staver**, and C. Coetsee. 2017. Chapter 10: Interactions between fire and ecosystem processes: implications for fire management. In Cromsigt, J., S. Archibald, and N. Owen-Smith (eds). *Savanna Ecology and Management: Conserving Africa's Mega-Diversity in the Hluhluwe-iMfolozi Park*. Cambridge UP: Cambridge.
80. Pellegrini, A.F.A., A.C. **Staver**, L.O. Hedin, T. Charles-Dominique and A. Tourgee. 2016. Aridity, not fire, favors nitrogen-fixing plants across tropical savanna and forest biomes. *Ecology* 97 (9), 2177-2183.
81. Aleman‡, J.C., O. Blarquez, and A.C. **Staver**. 2016. Land use change outweighs projected effects of changing rainfall on tree cover in sub-Saharan Africa. *Global Change Biology* 22 (9), 3013-3025.
82. Charles-Dominique, T., A.C. **Staver**, G.F. Midgley, and W.J. Bond. 2015. Functional differentiation of biomes in an African savanna/forest mosaics. *South African Journal of Botany* 101: 82-90.
83. Pellegrini, A.F.A., L. Hedin, A.C. **Staver**, and N. Govender. 2015. Fire alters ecosystem carbon and nutrients but not plant nutrient stoichiometry or composition in tropical savanna. *Ecology* 96: 1275–1285.
84. **Staver**, A.C., and M. Hansen. 2015. Analysis of stable states in global savannas: is the CART pulling the horse? – a comment. *Global Ecology and Biogeography* 24: 985–987.
85. Schertzer, E, AC **Staver**, & S Levin. 2015. Implications of the spatial dynamics of fire spread for the bistability of savanna and forest. *Journal of Mathematical Biology* 70:329-341.
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SEMINARS

CEREGE, Climate Research Group, Invited Seminar (January 2025)
CIRAD, AMAP, Invited Seminar (January 2025)
Gordon Research Conference, 'Unifying Ecology Across Scales: Towards a Predictive Ecology of the Anthropocene' Invited Speaker (July 2024)
Princeton University, Ecology & Evolutionary Biology, Invited Seminar (May 2024)
Missouri Botanical Garden, Invited Seminar (April 2024)
Washington University of St. Louis, Department of Biology, Invited Seminar (April 2024)
Universidade Federal de Minas Gerais, Biology Faculty, Invited Seminar (March 2024)
Kwame Nkrumah University of Science & Technology, Technical Workshop on Savanna Ecology and Management, Invited Seminar (January 2024)
University of Mpumalanga, Biology Faculty, Invited Seminar (August 2023)
Universidade Estadual de Campinas, Institute of Biology, Invited Seminar (June 2023)
Iowa State University, Division of Biology, Student Invited Seminar (April 2023)

Kansas State University, Division of Biology, Invited Seminar (April 2023)
Duke University, Ecology & Evolutionary Biology, Invited Seminar (February 2023)
Princeton University, Ecology & Evolutionary Biology, Invited Seminar (February 2023)
Univ. of British Columbia, Biodiversity Research Center, Invited Seminar (January 2023)
University of Edinburgh, Biosphere Group, Invited Seminar (November 2022)
University of Sheffield, School of Biosciences, Invited Seminar (October 2022)
Univ. of Cape Town, Biology Department, Invited Seminar (September 2022)
Kwame Nkrumah University of Science & Technology, Dept of Wildlife & Range Management, Invited Seminar (June 2022)
Brandeis University, Invited Seminar, Symposium for Year of Climate Action: Math and Climate (May 2022)
Oxford University, Center for the Environment, Invited Seminar (September 2021)
Rutgers University, School of Environment & Biological Sciences, Invited Seminar (September 2020)
Harvard University, Harvard Forest, Invited Seminar (February 2020)
University of Florida, Center for African Studies, Student Invited Speaker (September 2019)
University of Victoria, Plenary Speaker at 'LevinFest' for Simon Levin Honorary Doctorate (June 2019)
University of Texas, Austin, Invited Seminar (February 2019)
Cornell University, Ecology and Evolutionary Biology, Invited Seminar (January 2019)
Columbia University, Lamont Doherty Earth Observatory, Invited Seminar (January 2019)
ETH Zurich, Institute of Integrative Biology, Invited Seminar (January 2019)
Brown University, EEB, Departmental Seminar (December 2018)
Duke University, Mathematics, Probability Seminar Series (September 2018)
Smithsonian Tropical Research Institute, Invited Seminar (August 2018)
Utrecht Uni., Copernicus Institute of Sustainable Development, Invited Seminar (June 2018)
Goethe Uni., Senckenberg Biodiversity & Climate Research Center, Invited Sem. (June 2018)
Oxford University, Center for the Environment, Invited Seminar (June 2018)
Cary Institute for Ecosystem Studies, Invited Seminar (February 2018)
Indian Institute for Science, Bangalore, Invited Seminar & Workshop (January 2018)
Instituto de Ecología (*INECOL*)*, Xalapa, Invited Seminar* (in Spanish) (December 2017)
Texas A&M University, Departments of Ecosystem Science & Management and Ecology & Evolutionary Biology, Student Invited Speaker (October 2017)
University of Notre Dame, Biology, Departmental Seminar (September 2017)
University of the Witwatersrand, School of Animal, Plant and Environmental Sciences, Departmental Seminar (April 2017)
University of Edinburgh, School of Geosciences, Departmental Seminar (October 2016)
Utah State University, Ecology Center, Student Invited Speaker (September 2016)
Brown University, EEB, Departmental Seminar (September 2016)
College de France, Invited Seminar, Symposium: Modelling & Predicting Ecological Transitions (June 2016)
Yale University, School of Forestry & Environmental Studies Seminar (March 2016)
Harvard University, Arnold Arboretum Seminar (December 2015)
Stanford University, Biology, Departmental Seminar (December 2014)
Columbia University, Schools of Arts and Sciences, Invited Colloquium (April 2014)

Duke University, Mathematics, Departmental Seminar (April 2014)
College de France, Center for Interdisciplinary Research in Biology, Invited Seminar (December 2013)
Lehigh University, Earth & Environmental Sciences, Donnell Foster-Hewett Lecture (February 2013)
University of California Berkeley, ESPM, Departmental Seminar (March 2013)
University of Maryland, Biology, Departmental Seminar (January 2013)
University of California Davis, Ecology & Evolution, Departmental Seminar (January 2013)
Yale University, Ecology & Evolutionary Biology, Departmental Seminar (November 2012)
Columbia University, E3B, Departmental Seminar (February 2012)
NIMBioS, 'Disturbance Regimes & Climate-Carbon Feedbacks' Invited Colloquium (February 2012)