

Dr Anabelle Williamson Cardoso

Ecology and Evolutionary Biology Dept.
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Yale University
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CURRENT POSITION

2019-present **Postdoctoral Research Associate, Yale University**

Ecology and Evolutionary Biology Dept.

In the labs of: Assoc. Prof. Carla Staver (Yale University) and Prof. Sally Archibald (University of Witwatersrand)

EDUCATION

2015-2018 **Ph.D., University of Oxford**

Geography and the Environment

Supervised by: Prof. Yadvinder Malhi, Dr Imma Oliveras, Prof. Kate Abernethy, and Prof. William Bond

2013-2014 **M.Sc., University of Oxford, *distinction***

Environmental Change and Management

2012 **B.Sc. (Hons.), University of Cape Town, *distinction***

Botany

2009-2011 **B.Sc., University of Cape Town, *distinction***

Ecology, Biodiversity & Evolutionary Biology

PUBLICATIONS IN PEER REVIEWED JOURNALS

Google Scholar profile: <https://scholar.google.com/citations?user=-T7q0CgAAAAJ>

*** shows first author publications**

Bush, E. R.; Whytock, R. C.; Bahaa-el-din, L.; Bourgeois, S.; Bunnefeld, N.; **Cardoso, A. W.**; Dikangadissi, J. T.; Dimbonda, P.; Dimoto, E.; Edzang Ndong, J.; Jeffery K. J.; Lehmann, D.; Makaga, L.; Momboua, B.; Momont, L. R. W.; Tutin, C. E. G.; White, L. T. J. W.; Whittaker, A.I. Abernethy, K. A. 2020. Long-term collapse in fruit availability threatens Central African forest megafauna. *Science*.

***Cardoso, A.W.**; Malhi, Y.; Oliveras, I.; Lehmann, D.; Edzang Ndong, J.; Dimoto, E.; Bush, E.; Jeffery, K.J.; Labriere, N.; Lewis, S.L.; White, L.T.J.; Bond, W.J.; Abernethy, K.A. 2019. The role of forest elephants in shaping tropical forest-savanna coexistence. *Ecosystems*.

Willi, M.; Pitman, R. T.; **Cardoso, A.W.**, Locke, C.; Swanson, A.; Boyer, A.; Veldthuis, M.; Fortson, L. 2019. Identifying animal species in camera trap images using deep learning and citizen science. *Methods in Ecology and Evolution*.

***Cardoso, A.W.**; Oliveras, I.; Abernethy, K.A.; Jeffery, K. J.; Lehmann, D.; Edzang Ndong, J.; McGregor, I.; Belcher, C.M.; Bond, W.J.; Malhi, Y. 2018. Grass species flammability, not biomass, drives changes in fire behavior at tropical forest-savanna transitions. *Frontiers in Forests and Climate Change*.

***Cardoso, A.W.**; Midgley, J.J.; Hoffman M.T.; Geldenhuys, C.J. 2017. Temperate forest dynamics and carbon storage: a 26-year case study from Orange Kloof Forest, Cape Peninsula, South Africa. *Southern Forests*.

Ah-Peng, C.; **Cardoso, A.W.**; Flores, O.; Wilding, N.; Strasberg, N.; Hedderson, T.A.J. 2017. The role of epiphytic bryophytes in interception, storage, and the regulated release of atmospheric moisture in tropical montane cloud forest. *Journal of Hydrology*.

***Cardoso, A.W.**; Medina-Vega, J.; Malhi, Y.; Adu-Bredu, S.; Ametsitsi, G.K.D.; Djagbletey, G.; van Langevelde, F.; Veenendaal, E.; Oliveras, I. 2016. Winners and losers: tropical forest tree seedling survival across a West African forest–savanna transition. *Ecology and Evolution*.

Simon, T.; Hoffman, M.T.; Henschel, J.; **Cardoso, A.W.**; Brooks, M.; Underhill, L. 2016. The potential impacts of fracking on the biodiversity of the Karoo Basin, South Africa. In: Hydraulic fracturing in the Karoo: Critical legal and environmental perspectives. Eds: Glazewski, J.; Esterhuysen, S.

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PUBLICATIONS IN PREPARATION AND REVIEW

- ***Cardoso, A.W.**; Oliveras, I.; Abernethy, K.A.; Jeffery, K.J.; Glover, S.; Lehmann, D.; Edzang Ndong, J.; White, L.T.J.; Bond, W.J.; Malhi, Y. A distinct ecotonal tree community exists at central African forest-savanna transitions. *In review at Journal of Ecology*.
- Whytock, R. C.; Świeżewski, J.; Zwerts, J.; Bara-Słupski, T.; Koumba Pambo, F.; Rogala, M.; Bahaa-el-din, L.; Boekee, K.; Brittain, S.; **Cardoso, A. W.**; Henschel, P.; Lehmann, D.; Momboua, B.; Opepa, C. K.; Orbell, C.; Pitman, R.; Robinson, H. S.; Abernethy, K. A. 2020. High performance machine learning models can fully automate labeling of camera trap images for ecological analyses. *BioRxiv preprint, in review at Methods in Ecology and Evolution*.
- ***Cardoso, A.W.**; Archibald, S.; Govender, N.; Bond, W. J.; Strydom, T.; Mpanza, N.; Koumba-Pambo, F.; Edzang Ndong, J.; Makaga, L.; Lehmann, D.; Strydom, T.; Tillman, D.; Wragg, P.; Staver, A. C. Quantifying the environmental limits to fire spread in grass-dominated ecosystems. *Near submission for Nature Climate Change*.
- ***Cardoso, A.W.**; Forrest, M.; S.; Staver, C. Precipitation anomalies have opposite effects on burnt area depending on biome. *In preparation*.

GRANTS, SCHOLARSHIPS, AND AWARDS

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| 2015-2018 | Bruce, Julia, and Mortimer May Senior Scholar in Geography (award of £26 000 p/a to support research expenses during doctoral studies). |
| 2015-2018 | Commonwealth Scholarship (fully funded doctoral scholarship to the University of Oxford). |
| 2015-2018 | Oppenheimer Scholarship (selected by the Oppenheimer Foundation as one of the top South African recipients of the Commonwealth Scholarship). |
| 2013-2014 | Santander Travel Award (funding to support M.Sc. research expenses). |
| 2013-2014 | Skye Foundation Scholarship (fully funded M.Sc. scholarship to the University of Oxford). |
| 2013-2014 | Commonwealth Scholarship (fully funded M.Sc. scholarship to the University of Oxford – was unable to accept due to already having secured funding). |
| 2012 | South African National Research Foundation “Freestanding” Scholarship (fully funded M.Sc. scholarship to the University of Cape Town - was unable to accept due to accepting a position at another university). |
| 2012 | South African Association of Botanists Scholarship (funding to support B.Sc. Hons. studies). |
| 2011 | University of Cape Town Science Faculty Scholarship (funding to support undergraduate studies). |
| 2010 | Dick and Dorothy Borchard’s Prize (award for the highest achieving student in 2 nd year Botany or Astronomy). |
| 2010-2012 | Class medal for achieving the highest mark in the class (B.Sc. Hons. in Botany, 3 rd Year Systematics, 3 rd Year Ecosystem Ecology, 2 nd Year Plant Diversity, 2 nd Year Principles of Evolution). |
| 2009-2012 | Dean’s Merit List (award for having a weighted average over 70% in all courses taken). |
| 2009 | University of Cape Town Entrance Scholarship (funding to support first year undergraduate studies based on high school leaving results and entrance test results). |

POSTGRADUATE SUPERVISION AND TEACHER TRAINING

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| 2020 | Co-supervised the senior undergraduate thesis of Krish Maypole, Yale University. |
| 2020 | Supervised the undergraduate research project of Annli Nakayama, Yale University. |
| 2020 | Co-supervised the MSc thesis of Londiwe Mokoena, University of Witwatersrand. |
| 2020 | In process of completing the “Introduction to evidence-based undergraduate STEM teaching” course, Yale Centre for Teaching and Learning/ Center for the Integration of Research, Teaching, and Learning; 8 weeks). |
| 2020 | In process of completing the “College Teaching Preparation” certificate, Yale Centre for Teaching and Learning; 72 hours). |
| 2019 | Co-supervised the MSc thesis of Charles Emogor, University of Oxford. |
| 2018 | Co-supervised the MSc thesis of Ian McGregor, University of Oxford. |

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LECTURING AND TEACHING EXPERIENCE

2020	Lectured (online) on the BSc. “3 rd year field trip” course, module: Statistics in R, University of Witwatersrand (1 module and supervision of two field projects).
2019	Lectured on the M.Sc. “Forestry” course, module: Tropical Forest Ecosystems, Yale University (1 lecture).
2017	Teaching assistant on the M.Sc. “Environmental Change and Management” course, module: Statistics, University of Oxford (1 module).
2015	Lectured and assisted with practicals on the M.Sc. “Conservation Biology” course, module: Community Ecology, University of Cape Town (2 lectures and 1 fieldtrip).
2013	Demonstrator on the BSc field course “Ecosystems”, University of Cape Town (practical component of entire course).
2012-2013	Demonstrator on the BSc “Biology” course practicals, University of Cape Town (practical component of entire course)

INVITED SEMINARS AND CONFERENCE PRESENTATIONS

2020	“Fires, elephants, and ecotones”, invited seminar for Botany and Zoology Department, Stellenbosch University, South Africa.
2020	“Why do fires stop spreading?”, Savanna Science Network Meeting, Skukuza, South Africa.
2019	“How are forest-savanna transitions affected by fire and forest elephants?”, invited seminar for School of Animal, Plant, and Environmental Sciences, University of Witwatersrand, South Africa.
2019	“The role of forest elephants in shaping forest and savanna co-existence”, Savanna Science Network Meeting, Skukuza, South Africa.
2018	“Are forest-savanna transitions home to a distinct woody community?”, Savanna Science Network Meeting, Skukuza, South Africa.
2017	“How fire and forest elephants affect forest-savanna transition dynamics” (unable to attend in person, presentation given on my behalf by Dr Imma Oliveras), Association of Tropical Biologists Conference, Mérida, Mexico.
2017	“How fire and elephants affect forest-savanna coexistence”, Savanna Science Network Meeting, Skukuza, South Africa.
2016	“How fire and elephants affect forest-savanna mosaic dynamics”, invited seminar for School of Geosciences, University of Edinburgh, Scotland.
2016	“How relevant are elephants? Forest elephants in a forest-savanna mosaic in Central Africa”, Hertford College Senior Scholar Seminar Series, University of Oxford.
2016	“How fire and elephants interact to affect forest encroachment in a central African forest-savanna mosaic” (poster), Savanna Science Network Meeting, Skukuza, South Africa.

PROFESSIONAL EXPERIENCE

January-June 2015	Research Assistant to Prof. Timm Hoffman, Plant Conservation Unit, University of Cape Town.
June-July 2015	Research Assistant to Prof. William Bond, Botany Department, University of Cape Town.
June-July 2011	Research Assistant to Dr Nicola Bergh, South African National Biodiversity Institute.

ACADEMIC SERVICE

Manuscript reviewer: Journal of Ecology, New Phytologist, African Journal of Ecology, Biotropica, International Journal of Wildland Fire.