

# Barnabas H. Daru, PhD

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GoogleScholar: <https://goo.gl/2t1Wau>

## PROFESSIONAL APPOINTMENTS

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- 2018- **Assistant Professor of Biology**, Texas A&M University Corpus Christi, Texas.
- 2018- **Harvard University Herbaria Research Associate**, Harvard University.
- 2016-18 **Harvard University Herbaria Postdoctoral Fellow**, Harvard University.
- 2014-16 **Lecturer**, Department of Plant Science, University of Pretoria, South Africa.
- 2010-14 **Research Assistant Plant Diversity**, University of Johannesburg, South Africa.
- 2005-07 **Intern**: A. P. Leventis Ornithological Research Institute, Nigeria.

## EDUCATION

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- 2016-18 **Postdoctoral Fellow**, Harvard University  
Project: *Extinction risk, biotic interactions and phenological diversity using herbarium records.*  
Faculty Mentor: Prof Charles Davis, Harvard University.
- 2012-15 **Ph.D. in Biology**, University of Johannesburg, South Africa  
Dissertation: *An evaluation of the phylogenetic diversity of trees in southern Africa.*  
Faculty Advisors: Prof Michelle van der Bank and Prof T. Jonathan Davies.
- 2010-12 **M. Sc. in Biology**, University of Johannesburg, South Africa  
Project: *Molecular phylogenetics of Alooideae (Asphodelaceae).*  
Faculty Advisors: Prof Michelle van der Bank and Dr Olivier Maurin
- 2003-07 **B.Sc. Hons**, University of Jos, Nigeria

## GRANTS AND FELLOWSHIPS (TOTAL = \$1,314,792)

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- 2021-23 NSF DBI (**Lead PI**), Collaborative Research: phyloregion, computational infrastructure for biogeographic regionalization and macroecology in the R computing environment (**\$585,050**)
- 2022-24 Texas Parks and Wildlife (**co-PI**), A multi-taxa assessment of the Ingleside Sandsheet Pond habitat to inform and support conservation (**\$384,301**)
- 2020-23 NSF DEB (**PI**), Leveraging historical collections and new surveys to characterize foundational shifts in vital symbioses in the threatened Arctic (**\$143,676**)
- 2019-23 NSF DEB (**subaward**), Digitization TCN: Collaborative: American Crossroads: Digitizing the vascular flora of the south-central US (**\$42,245**)
- 2016-18 Harvard University Herbaria Postdoctoral Fellowship, Analysis of extinction risk, biotic interactions and spatial trends of phenological diversity using herbarium records (**\$135,000**)
- 2015-16 South African National Research Foundation (**Lead PI**), Mangrove transcriptomics (**\$9300**)
- 2015-16 Genome Research Institute, University of Pretoria, South Africa (**\$4500**)
- 2014 South African National Research Foundation Doctoral Fellowship (**\$8200**)
- 2014 South African National Research Foundation Travel Grant (**\$3000**)
- 2003-07 Nigerian Petroleum Corporation Undergraduate Fellowship (**\$1912**)

## PUBLICATIONS

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(43 papers; \*Student author, †Postdoctoral author, Citations = 1501, H-index = 21)

### [2021]

43. **Daru, B.H.** (2021) Migratory birds distribute seeds to new climates. *Nature* 595: 34-36.
42. Meineke, E.K. & **Daru, B.H.** (co-first author) (2021) Bias assessments to expand research harnessing biological collections. *Trends in Ecology and Evolution* doi: 10.1016/j.tree.2021.08.003
41. \*Rock, B.M. & **Daru, B.H.** (2021) Impediments to understanding seagrasses' response to global change. *Frontiers in Marine Science* 8: 608867.
40. **Daru, B.H.** (2021) Exploring a new way to think about climate regions. *eLife* 10: e67422.

### [2020]

39. **Daru, B.H.**, \*Farooq, H., Antonelli, A. & Faurby, S. (2020) Endemism patterns are scale dependent. *Nature Communications* 11: 2115.
38. Davies, T.J., **Daru, B.H.**, Bezeng, B.S., Charles-Dominique, T., Hempson, G.P., \*Kabongo, R.M., Maurin, O., Muasya, A.M., van der Bank, M. & Bond, W.J. (2020) Savanna tree evolutionary ages inform the reconstruction of the paleoenvironment of our hominin ancestors. *Scientific Reports* 10: 12430.
37. **Daru, B.H.**, †Karunarathne P. & †Schliep K. (2020) phyloregion: R package for biogeographic regionalization and macroecology. *Methods in Ecology and Evolution* 11: 1483-1491.

### [2019]

36. **Daru, B.H.**, le Roux, P.C., Gopalraj, J., †Park, D.S., Holt, B.G. & Greve, M. (2019) Spatial overlaps between the global protected areas network and terrestrial hotspots of evolutionary diversity. *Global Ecology and Biogeography* 28: 757-766.
35. \*Mathakutha, R., \*Steyn, C., le Roux, P.C., \*Blom, I.J., Chown, S.L., **Daru, B.H.**, Ripley, B.S., Louw, A. & Greve, M. (2019) Invasive species differ in key functional traits from native and non-invasive alien plant species. *Journal of Vegetation Science* 30: 994-1006.
34. **Daru, B.H.**, \*Kling, M.M., †Meineke, E.K. & van Wyk, A.E. (2019) Temperature controls phenology in continuously flowering *Protea* species of subtropical Africa. *Applications in Plant Sciences* 7: e1232.

### [2018]

33. **Daru, B.H.**, \*Bowman, E.A., Pfister, D.H. & Arnold, A.E. (2018) A novel proof of concept for capturing the diversity of endophytic fungi preserved in herbarium specimens. *Philosophical Transactions of the Royal Society B* 374: 20170395.
32. †Meineke, E.K., Davies, T.J., **Daru, B.H.** & Davis, C.C. (2018) Biological collections for understanding biodiversity in the Anthropocene. *Philosophical Transactions of the Royal Society B* 374: 20170386.
31. **Daru, B.H.**, Park, D.S., Primack, R.B., Willis, C.G., Barrington, D.S., Whitfeld, T.J.S., Seidler, T.G., Sweeney, P.W., Foster, D.R., Ellison, A.M. & Davis, C.C. (2018) Widespread sampling biases in herbaria revealed from large-scale digitization. *New Phytologist* 217: 939-955.
30. **Daru, B.H.**, van der Bank, M. & Davies, T.J. (2018) Unravelling the evolutionary origins of biogeographic assemblages. *Diversity and Distributions* 24: 313-324.

### [2017]

29. **Daru, B.H.**, Elliott, T.L., Park, D.S. & Davies, T.J. (2017) Understanding the processes underpinning patterns of phylogenetic regionalization. *Trends in Ecology and Evolution* 32: 845-860.
28. **Daru, B.H.**, Holt, B.G., Lessard, J.P., Yessoufou, K. & Davies, T.J. (2017) Phylogenetic regionalization of marine plants reveals close evolutionary affinities among disjunct temperate assemblages. *Biological Conservation* 213: 351-356.

27. **Daru, B.H.**, van der Bank, M. & Yessoufou, K. (2017) Testing the reliability of the standard and complementary DNA barcodes for the monocot subfamily Alooideae from South Africa. *Genome* 60: 337–347.
26. Bezeng, B.S., Morales-Castilla, I., van der Bank, M., Yessoufou, K., **Daru, B.H.** & Davies, T.J. (2017) Climate change may reduce the spread of non-native species. *Ecosphere* 8: e01694.
25. Yessoufou, K., **Daru, B.H.**, Elansary, H.O., Rampedi, I. (2017) Integrating biogeography, threat, and evolutionary data to explore extinction on crisis in the taxonomic group of cycads. *Ecology and Evolution* 7: 2735–2746.
24. Bezeng, B.S., Davies, T.J., **Daru, B.H.**, Kabongo, R.M., Maurin, O., Orton, R.D., Yessoufou, K., van der Bank, H. & van der Bank, M. (2017) Ten years of barcoding at the African Centre for DNA barcoding. *Genome* 60: 629–638.

#### [2016]

23. Charles-Dominique, T., Davies, T.J., Hempson, G.P., Bezeng, B.S., **Daru, B.H.**, Kabongo, R.M., Maurin, O., Muasya, A.M., van der Bank, M. & Bond, W.J. (2016) Spiny plants, mammal browsers and the origin of African savannas. *Proceedings of the National Academy of Sciences USA* 113: E5572–E5579.
22. **Daru, B.H.** & le Roux, P.C. (2016) Marine protected areas are insufficient to conserve global marine plant diversity. *Global Ecology and Biogeography* 25: 324–334.
21. **Daru, B.H.**, van der Bank, M., Maurin, O., Yessoufou, K., Schaefer, H., Slingsby, J.A. & Davies, T.J. (2016) A novel phylogenetic regionalization of the phytogeographic zones of southern Africa reveals their hidden evolutionary affinities. *Journal of Biogeography* 43: 155–166.
20. **Daru, B.H.**, Berger, D.K. & van Wyk, A.E. (2016) Opportunities for unlocking the potential of genomics for African trees. *New Phytologist* 210: 772–778.
19. Davies, T.J., **Daru, B.H.**, van der Bank, M., Maurin, O. & Bond, W.J. (2016) Multiple routes underground? Frost alone cannot explain the evolution of underground trees. *New Phytologist* 209: 910–912.

#### [2015]

18. **Daru, B.H.**, van der Bank, M. & Davies, T.J. (2015) Spatial incongruence among hotspots and complementary areas of tree diversity in southern Africa. *Diversity and Distributions* 21: 769–780.
17. Yessoufou, K., **Daru, B.H.** & Muasya, A.M. (2015) Phylogenetic exploration of commonly used medicinal plants in South Africa. *Molecular Ecology Resources* 15: 405–413.
16. Bello, A., **Daru, B.H.**, Stirton, C.H., Chimphango, S.B.M., van der Bank, M., Maurin, O. & Muasya, A.M. (2015) DNA barcoding reveals microevolutionary signals in fire survival and regeneration strategies in southern African Psoraleoid legumes. *AoB PLANTS* 7: plv124.
15. **Daru, B.H.**, Yessoufou, K., Nuttman, C. & Abalaka, J. (2015) A preliminary study of bird use of fig *Ficus* species in Amurum Forest Reserve, Nigeria. *Malimbus* 37: 1–15.

#### [2014]

14. Maurin, O., Davies, T.J., Burrows, J.E., **Daru, B.H.**, Yessoufou, K., Muasya, A.M., Van der Bank, M. & Bond, W.J. (2014) Savanna fire and the origins of the "underground forests" of Africa. *New Phytologist* 204: 201–214.
13. Manning, J.C., Boatwright, J.S., **Daru, B.H.**, Maurin, O. & Van der Bank, M. (2014) A molecular phylogeny and classification of Asphodelaceae subfamily Alooideae: towards a resolution of the prickly issue of polyphyly in the Aloooids. *Systematic Botany* 39: 55–74.
12. Yessoufou, K., Bamigboye, S.O., **Daru, B.H.** & Van der Bank, M. (2014) Evidence of constant diversification punctuated by a mass extinction in the African cycad. *Ecology and Evolution* 4: 50–58.
11. Iheanacho, H.E., Njobeh, P.B., Dutton, F.M., Steenkamp, P.A., Steenkamp, L., Mthombeni, J.Q., **Daru, B.H.** & Makun, A.H. (2014) Morphological and molecular identification of filamentous

*Aspergillus flavus* and *A. parasiticus* isolated from compound feeds in South Africa. *Food Microbiology* 44: 180–184.

10. Yessoufou, K., Gere, J., **Daru, B.H.** & Van der Bank, M. (2014) Differences in evolutionary history translate into differences in invasion success of alien mammals in South Africa. *Ecology and Evolution* 4: 2115–2123.

#### [2013]

09. **Daru, B.H.**, Yessoufou, K., Mankga, L.T. & Davies, T.J. (2013) A global trend towards the loss of evolutionarily unique species in mangrove ecosystems. *PLoS ONE* 8: e66686.
08. **Daru, B.H.**, Manning, J.C., Boatwright, J.S., Maurin, O., Maclean, N., Schaefer, H., Kuzmina, M. & Van der Bank, M. (2013) Molecular and morphological analysis of subfamily Aloooideae (Asphodelaceae) and the inclusion of *Chortolirion* in *Aloe*. *Taxon* 62: 62–76.
07. Kyalangalilwa, B., Boatwright, J.S., **Daru, B.H.**, Maurin, O. & Van der Bank, M. (2013) Phylogenetic position and revised classification of *Acacia s.l.* (Fabaceae: Mimosoideae) in Africa, including new combinations in *Vachellia* and *Senegalia*. *Botanical Journal of the Linnean Society* 172: 500–523.

#### [2012]

06. Yessoufou, K., **Daru, B.H.** & Davies, T.J. (2012) Phylogenetic patterns of extinction risk in the Eastern Arc ecosystems, an African biodiversity hotspot. *PLoS ONE* 7: e47082.
05. Van der Bank, H.F., Greenfield, R., **Daru, B.H.** & Yessoufou, K. (2012) DNA barcoding reveals micro-evolutionary changes and river system-level phylogeographic resolution of seven populations of African silver catfish, *Schilbe intermedius* (Siluriformes, Schilbeidae). *Acta Ichthyologica et Piscatoria* 42: 307–320.
04. Yessoufou, K., Abalaka, J., Van der Bank, M. & **Daru, B.H.** (2012) Fig-frugivore interactions follow a constrained Brownian motion model of evolution in an Important Bird Area, West Africa. *Israel Journal of Ecology and Evolution* 58: 39–51.

#### Publications in Peer-Reviewed Book Chapters

03. **Daru, B.H.** & Yessoufou, K. (2016) A search for a single DNA barcode for seagrasses of the world. In: *DNA barcoding in marine perspectives: assessment and conservation of biodiversity* (eds. by S. Trivedi, A.A. Ansari, K.S. Ghosh, H. Rehman), pp. 313–330. Springer International Publishing Switzerland. doi: 10.1007/978-3-319-41840-7\_19
02. Gere, J., Yessoufou, K., **Daru, B.H.**, Mankga, L.T., Maurin, O. & Van der Bank, M. (2013) Incorporating *trnH-psbA* to the core DNA barcodes improves significantly species discrimination within southern African Combretaceae. In: *DNA barcoding: a practical tool for fundamental and applied biodiversity research* (eds. by Z.T. Nagy, T. Backeljau, M. De Meyer, K. Jordaens), ZooKeys 365, pp. 127–147. doi: 10.3897/zookeys.365.5728.
01. Mankga, L.T., Yessoufou, K., Moteetee, A.M., **Daru, B.H.** & Van der Bank, M. (2013) Efficacy of the core DNA barcodes in identifying processed and poorly conserved plant materials commonly used in South African traditional medicine. In: *DNA barcoding: a practical tool for fundamental and applied biodiversity research* (eds. by Z.T. Nagy, T. Backeljau, M. De Meyer, K. Jordaens), ZooKeys 365, pp. 215–233. doi: 10.3897/zookeys.365.5730.

#### Manuscripts Submitted or Under Review

05. Davies, T.J., Maurin, O., Yessoufou, K., **Daru, B.H.**, Bezeng, B.S., Mankga, L.T., Schaefer, H., Thuiller, W. & van der Bank, M. Phylogenetically diverse tree assemblages support a diversity of ecosystem goods and coincide with high human population density. *Proceedings of the National Academy of Sciences USA* (under consideration).
04. **Daru, B.H.**, Willis, C.G., Meineke, E.K., Ronk, A., Zobel, M., Pärtel, M., Antonelli, A., Davies, T.J. & Davis, C.C. Widespread homogenization of plant communities in the Anthropocene. *Nature Communications* (under consideration).

03. **Daru, B.H.** & Yessoufou, K. Phylogenetically informed delineation of phytogeographic realms of the world. *Botany Letters* (under review).
02. Gumbs, R., Chaudhary, A., Daru, B.H., Faith, D.P., Forest, F., Gray, C.L., Kowalska, A., Lee, W.S., Pellens, R., Pollock, L.J., Rosindell, J., Scherson, R.A. & Owen, N.R. The Post-2020 Global Biodiversity Framework must safeguard the Tree of Life. *Conservation Letters* (under review).
01. Rock, B.M. & **Daru, B.H.** Climate change to reorganize and homogenize seagrass communities in a changing future *Nature Climate Change* (under review).

### Features on TV, News and Popular Media Sources

08. TAMUCC News "Island University Biology Professor Awarded National Science Foundation Grant as Part of Arctic Research Project", October 21, 2020. Available at: <https://tamucc.edu/news/2020/10/102120-nsf-cose-biology-herbarium-daru-research-project.html#.YC61yRNKjIw>
07. TAMUCC News "Island University Researcher's Team Finds New Ways to Study Rare Animals", April 30, 2020. Available at: <https://tamucc.edu/news/2020/04/043020-rare-animal-study.html#.YC61exNKjIw>
06. EurekAlert "Critical collections", November 19, 2018. Available at: <https://goo.gl/KXbvH9>
05. Reuell, P. "Study uncovers botanical bias", *Harvard Gazette*, December 22, 2017. Available at: <http://tiny.cc/7rfupy>
04. TV interview, "The vital role of seagrasses in marine ecosystems", *WGBH Forum Network Boston*, January 10 (2017). Available at: <http://tiny.cc/cksxiy>
03. Powell, A. "Strong case for seagrass", *Harvard Gazette*, September 15 (2016). Available at: <http://tiny.cc/clxxfy>
02. Chabalala, J. "The thorny side of antelope evolution in Africa", *News24*, September 7 (2016). Available at: <http://tiny.cc/4mxxfy>
01. Barras, C. "Why some trees evolved to live underground", *BBC*, November 3 (2014). Available at: <http://tiny.cc/73y8fy>

## TEACHING AND ADVISING

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### TEXAS A&M UNIVERSITY-CORPUS CHRISTI

#### Graduate

- BIOL 5309: Systematics, Spring 2021.
- BIOL 5308: Biogeography, Spring 2020.
- BIOL 5308: Biogeography, Spring 2019.

#### Undergraduate

- BIOL 3479: Plant Ecology, Spring 2021.
- BIOL 4590: Biological Systematics and Phylogenetics, Spring 2021.
- BIOL 2300: Science Communication, Fall 2020.
- BIOL 4422: Plant Taxonomy, Spring 2020.
- BIOL 4590: Biogeography, Spring 2020.

### A. P. LEVENTIS ORNITHOLOGICAL RESEARCH INSTITUTE, NIGERIA

#### Graduate

- Conservation Biology, Summer 2019.

### UNIVERSITY OF PRETORIA, SOUTH AFRICA

#### Undergraduate

- MLB 133: Molecular and Cell Biology, 2015.
- MLB 143: Molecular and Cell Biology, 2015-2016.

## UNIVERSITY OF JOHANNESBURG, SOUTH AFRICA

R for Phylogenetics and Spatial Ecology, 2015.

BOT 1B: Plant Diversity, 2010-2016 (Teaching Assistant)

## NATIONAL YOUTH SERVICE CORPS, NIGERIA

General High School Biology Teacher (Comprehensive Grammar Secondary School Ogboro, Oyo State, Nigeria), 2008-2009

## MENTORING

### Postdoc

Dr. Piyal Karunarathne (Postdoctoral Scholar, TAMUCC, 2019-20)

### Graduate

Alex Aromin (PhD, TAMUCC, Incoming)

Paul Markley (PhD, TAMUCC, 2021-present)

Brianna Rock (MS, TAMUCC, 2019-21)

Arras Wiedorn (MS, TAMUCC, 2020-present)

Sydney Ramulifho (MS, University of Johannesburg, South Africa, 2015-17)

Samantha-Leigh Jamison (MS, University of Pretoria, South Africa, 2015-17)

### Undergraduate

Jordan Rodriguez (TAMUCC, 2019-present)

Samantha Maupin (TAMUCC, 2021-present)

James Coquat (TAMUCC, 2019-21)

Christian Amos (TAMUCC, 2019-20)

Lauren Snyder (TAMUCC, 2019-20)

David Bower (University of Pretoria, South Africa, 2015-15)

Lesiba Papo (University of Johannesburg, South Africa, 2013-14)

Babatunde S. Ojelade (University of Johannesburg, South Africa, 2013-14)

## PRESENTATIONS

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### Honorary Lecture at International Conference

**Invited Keynote Speaker**, "Understanding plant biogeography in the Anthropocene", *Houston Regional Ecology and Evolution Student Symposium*, Texas, USA, May 2021.

**Invited Plenary Speaker**, "Putting phylogenetic biogeography on the map", *21<sup>st</sup> congress of the Association for the Taxonomic Study of the Flora of Tropical Africa (AETFAT)*, Nairobi Kenya, May 2017 (~300 participants).

### Conference Presentations

**Daru BH** (2020) GreenMaps: a Tool for Addressing the Wallacean Shortfall in the Global Distribution of Plants. *46<sup>th</sup> conference of the South African Association of Botanists, Qwaqwa, Free State, South Africa.*

Rodriguez J & **Daru BH** (2020) Mismatches and congruencies in plant sampling biases between observations and vouchered specimens. *46<sup>th</sup> conference of the South African Association of Botanists, Qwaqwa, Free State, South Africa.*

Snyder L & **Daru BH** (2019) How digitization efforts at small local herbaria add to the scientific community and predicting the impact of the Ruth O'Brien herbarium. *Global Change Symposium, Texas A&M University-Corpus Christi, December.*

- Daru BH** et al. (2019) Spatial overlaps between the global protected areas network and terrestrial hotspots of evolutionary diversity, *Evolution Conference, Providence, USA*.
- Daru BH** et al. (2019) Temperature controls phenology in continuously flowering Protea species of subtropical Africa, *Digital Data in Biodiversity Research Conference, Yale University, USA*.
- Daru BH** et al. (2018) Sampling biases in herbarium specimens, *Ecological Society of America meeting, New Orleans, USA*.
- Daru BH** (2017) Widespread phylogenetic homogenization in plant communities from anthropogenic change, *Congress of the Southern African Society for Systematic Biologists, Pretoria, South Africa*.
- Daru BH, le Roux PC** (2016) Marine plant diversity hotspots, *International Biogeography Association: The Biogeography of Ecology Special Meeting, Beijing, China*.
- Daru BH, Elliott TL** (2016) Are phylogenies always better at biogeographic regionalization? *The 42<sup>nd</sup> SAAB conference, Bloemfontein, South Africa*.
- Daru BH** (2015) Analysis of climate change on flowering phenology of South African Protea (Proteaceae), *The 41<sup>st</sup> SAAB conference, Venda, South Africa*.
- Daru BH, Holt BG, Lessard JP, Yessoufou K, Davies TJ** (2015) Phylogenetic regionalization of seagrasses, *The 41<sup>st</sup> SAAB conference, Venda, South Africa*.
- Daru BH, van der Bank M, Maurin O, Yessoufou K, Schaefer H, Slingsby J, Davies TJ** (2014) A phylogenetic regionalization of the phytogeographic zones of southern Africa, *17<sup>th</sup> Congress of the Society for Conservation GIS, Pacific Grove, California, USA*.
- Daru BH, van der Bank M, Davies TJ** (2014) Tree diversity hotspots in southern Africa, *10<sup>th</sup> Postgraduate Symposium Department of Botany, University of Johannesburg, South Africa*.
- Daru BH, van der Bank M, Maurin O, Yessoufou K, Schaefer H, Slingsby J, Davies TJ** (2014) A phylogenetic reclassification of the phytogeographic zones of southern Africa, *20<sup>th</sup> Congress of the Association for the Taxonomical Study of the Flora of tropical Africa, Stellenbosch, South Africa*.
- Daru BH, van der Bank M, Maurin O, Yessoufou K, Schaefer H, Davies TJ** (2013) A phylogenetic reclassification of the phytogeographic zones of southern Africa, *International Biogeography Association: The Geography of Species Association Special Meeting, Montréal, Canada*.
- Daru BH, van der Bank M, Maurin O, Yessoufou K, Schaefer H, Davies TJ** (2013) A phylogenetic reclassification of the phytogeographic zones of southern Africa, *Ninth Postgraduate Symposium Department of Botany, University of Johannesburg, South Africa*.
- Daru BH, Yessoufou K, van der Bank M, Davies TJ** (2013) Extinction risk in the Eastern Arc flora, *39<sup>th</sup> SAAB conference, Drakensberg, South Africa*.
- Daru BH, Manning JC, Boatwright JS, Maurin O, van der Bank M** (2012). Phylogeny of the subfamily Alooideae (Asphodelaceae), *Congress of Southern African Society for Systematic Biology (SASSB), Arniston, Cape Town, South Africa*.
- Moderator:** DNA barcoding Webinar (2011): All-taxon biodiversity inventory projects at the African Centre for DNA Barcoding. Presented by Prof Michelle van der Bank.
- Daru BH, Maurin O, Maclean N, Bayer MB, van der Bank M** (2011). Molecular phylogeny of *Haworthia* (Asphodelaceae): evidence from plastid and nuclear DNA sequences, *Congress of Southern African Society for Systematic Biology (SASSB), Rhodes University, South Africa*.
- Daru BH, Tilahun D, Osei-Bonsu I, Tambal R** (2009). Does isolation influence herbivory, seed set and flower visits in the spread of *Lantana camara*? A test in Kibale, Uganda, *Conference of Nigerian Tropical Biology Association (NTBA), University of Ibadan, Nigeria*.
- Daru BH** (2007). Species diversity and abundance of fig wasps in *Ficus umbellata* and *F. exasperata*, *Conference of the Ecological Society of Nigeria (EcSN) Jos, Nigeria*.

## Posters

- Daru BH, Karunarathne P, Schliep K** (2020) phyloregion: R package for biogeographic regionalization and spatial conservation. *Conference of South African Association of Botanists, Qwaqwa, South Africa*.

- Daru BH**, Park DS, Willis CG, Kennedy J, Davis CC (2016) Assessing fine-scale sampling bias in herbarium specimens, *Botanical Society of America, Savannah Georgia, USA*.
- Daru BH**, van der Bank M, Davies TJ (2015) A molecular phylogenetic analysis of tree diversity hotspots in southern Africa, *35<sup>th</sup> New Phytologist Symposium. The genomes of forest trees: new frontiers of forest biology Harvard University, USA*.
- Daru BH**, Yessoufou K, Boatwright JS, van der Bank M (2012). Ecological factors shaping distribution of *Lachnaea* spp. (Thymelaeaceae), *Spring Science Poster Competition by the Royal Society of South Africa, Johannesburg, South Africa*.
- Daru BH**, Mwansat GS, Abalaka J, Imandeh GN (2008). Species diversity and abundance of fig wasps in *Ficus* species of Amurum Forest Reserve, Nigeria (Poster Presentation), *Students Conference on Conservation Science (SCCS), University of Cambridge, UK*.

## INVITED SEMINAR

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| 2021 | Department of Biology, Stanford University.                                   |
| 2021 | Carnegie Department of Plant Biology at Stanford.                             |
| 2021 | Elizade University, Nigeria, Department of Biological Sciences.               |
| 2020 | Louisiana State University, Department of Biological Sciences                 |
| 2020 | San Francisco State University, Department of Biology.                        |
| 2019 | Texas A&M University-College Station, Dept of Ecology & Evolutionary Biology. |
| 2019 | University of Massachusetts-Boston, Department of Biology.                    |
| 2019 | A. P. Leventis Ornithological Research Institute Jos, Nigeria.                |
| 2019 | Consortium of Northeastern Herbaria (neherbaria.org) at Yale University.      |
| 2019 | Texas A&M University-Corpus Christi, Department of Mathematics & Statistics.  |
| 2018 | Yale University, Department of Ecology and Evolutionary Biology.              |
| 2018 | Texas A&M University Corpus-Christi, Department of Life Sciences.             |
| 2018 | University of Central Oklahoma, Biology Department.                           |
| 2017 | Harvard University Herbaria Seminar Series.                                   |
| 2017 | Arnold Arboretum of Harvard University Seminar Series.                        |
| 2017 | Postdoctoral Science Café of Harvard University Seminar Series.               |
| 2017 | University of Pennsylvania, Department of Biology.                            |
| 2017 | Harvard University Herbaria Seminar Series.                                   |
| 2016 | Harvard University, Conservation Biology.                                     |
| 2014 | Harvard University, Department of Organismic and Evolutionary Biology         |
| 2014 | University of California, Berkeley, Department of Integrative Biology         |
| 2014 | University of Pretoria, South Africa, Department of Plant Science             |
| 2014 | A. P. Leventis Ornithological Research Institute Jos, Nigeria                 |
| 2013 | University of Pretoria, South Africa, Department of Plant Science             |

## AWARDS

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### Academic Recognition

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| 2015 | <b>Winner – New Phytologist Poster Prize \$150</b> at the 35 <sup>th</sup> New Phytologist Symposium: The genomes of forest trees: new frontiers of forest biology, Harvard University, USA. |
| 2014 | <b>Best PhD Oral Presentation</b> (gold medal) at the 10 <sup>th</sup> Annual Symposium, Department of Botany and Plant Biotechnology, University of Johannesburg, South Africa.             |
| 2013 | <b>Best PhD Oral Presentation</b> (gold medal) at the 9 <sup>th</sup> Annual Symposium, Department of Botany and Plant Biotechnology, University of Johannesburg, South Africa.              |
| 2012 | <b>Third Best Poster \$41</b> at the Royal Society of South Africa Spring Science Poster Competition, Delta Environmental Centre, Johannesburg, South Africa.                                |



- 2011 **Best Oral presentation by a MSc student \$164** at the congress of Southern African Society for Systematic Biology (SASSB) 2011, Rhodes University, South Africa.

### **Additional Support**

- 2010 **Royal Society of London/National Research Foundation Bursary:** Merit postgraduate scholarship for Masters in Botany and Plant Biotechnology, University of Johannesburg, South Africa.
- 2008 **Tropical Biology Association (TBA) Scholarship:** Full scholarship with which I participated on the 2008 TBA field course in Kibale Forest, Uganda.

## **PROFESSIONAL SERVICE**

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### **Editor for Scientific Journals**

- Associate Editor for *American Journal of Botany* (2021-date).  
Reviewing Editor for *eLife* (2020-date).  
Guest Editor for *Philosophical Transactions of the Royal Society B* for a theme issue: "Biological collections for understanding biodiversity in the Anthropocene" (2016-date).

### **Peer-Review Services for Scientific Journals**

Reviewer for: *Nature*, *Nature Communications*, *Nature Ecology and Evolution*, *Scientific Reports*, *eLife*, *Conservation Biology*, *Diversity and Distributions*, *Climate Change Ecology*, *Molecular Ecology*, *Global Ecology and Biogeography*, *Molecular Ecology Resources*, *African Journal of Ecology*, *South African Journal of Botany*, *Journal of Biogeography*, *Tropical Ecology*, *Phytotaxa*, and *Botany Letters*.

### **Grant Panel Service**

#### **National Science Foundation Panel member:**

1. Systematics and Biodiversity Science Program Panelist. May 2021.
2. Harnessing the Data Revolution (HDR): Institutes for Data-Intensive Research in Science and Engineering [NSF 21-519]. April, 2021.

### **Professional Affiliation**

- 2016- Botanical Society of America  
2014- Society for Conservation GIS (geographic information systems)  
2014- International Biogeography Society  
2013- Southern African Association of Botanists  
2010- Southern African Society for Systematic Biologists  
2008- Tropical Biology Association, Cambridge UK  
2007- Nigerian Conservation Foundation  
2007- Ecological Society of Nigeria.

### **Service**

- 2013-16 Website Manager, South African Association of Botanists ([www.sabotany.co.za](http://www.sabotany.co.za))

## **PROFESSIONAL DEVELOPMENT**

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- 2019 Certificate of Best Practices for Online Course Design, Texas A&M University-Corpus Christi.  
2016 Royal Society Discussion Meeting: *New trends in evolutionary biology: biological, philosophical and social science perspectives*. The Royal Society House, London, UK.  
2015 Certificate of participation in African Forest Forum training workshop on *African Forestry Experts on Forest Related International Agreements*, Mombasa, Kenya.  
2014 Certificate in *Working with Geodatabase Topology*, advanced GIS course at Asilomar Conference Grounds, California, USA.

- 2012 Advanced GIS analytic course at the University of Johannesburg, South Africa.
- 2012 Toyota Enviro Outreach plant samples collection, Cape Floristic Region, South Africa.
- 2012 Advanced R statistics course in Ecology, University of Sheffield, UK.
- 2011 Toyota Enviro Outreach plant samples collection, Maputaland biodiversity hotspot.
- 2011 R workshop in Phylogenetics and Spatial Ecology, University of Cape Town, South Africa.
- 2009 Introduction to R in Ecology, A. P. Leventis Ornithological Research Institute, Nigeria.
- 2008 Introductory Course on Molecular Ecology/DNA Barcoding at Imperial College London, UK.
- 2008 Tropical Biology Association (TBA) Field course (08/2) in Kibale Forest, Uganda.