

Barnabas H. Daru, PhD

Department of Life Sciences
Texas A&M University-Corpus Christi
6300 Ocean Drive, Unit 5800,
Corpus Christi, TX 78412, USA

Phone: +1 857 218 0117
Barnabas.Daru@tamucc.edu
<http://www.barnabasdaru.com>

SCHOLARLY PROFILE

I am passionate about evolutionary biology as my focus has been on characterizing phylogenetic relationships and how this can be translated into phylogenetic diversity for understanding the origin and distribution of biodiversity; and how this understanding can guide conservation decisions. Key focal areas include ecology, distribution modelling, species introductions and extirpations, biodiversity and global climate change, and conservation.

CURRENT APPOINTMENT

2018- **Assistant Professor of Biology**, Department of Life Sciences, Texas A&M University Corpus Christi, Texas.

EDUCATION

2016-2018 **Postdoctoral Fellow, Harvard University**

Project: Analysis of extinction risk, biotic interactions and spatial trends of phenological diversity using herbarium records.

Faculty Mentor: Charles Davis, Professor of Organismic and Evolutionary Biology and Curator of Vascular Plants in the Harvard University Herbaria.

2012-2015 **Ph.D. in Biology, University of Johannesburg, South Africa**

Dissertation: An evaluation of the phylogenetic diversity of trees in southern Africa.

Faculty Advisor: Prof Michelle van der Bank and Prof T. Jonathan Davies.

2010-2012 **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

2003-2007 **B.Sc. Hons, University of Jos, Nigeria**

Project: Species diversity of fig wasps in *Ficus* species of Amurum Forest, Nigeria.

PUBLICATIONS

(Google Scholar [August 2018]: 33 papers; 14 first-author; Times cited = 492; H-index = 13)

[2018]

33. **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.
32. **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]

31. **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.

30. **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.
29. **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.
28. 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.
27. 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.
26. 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]

25. 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.
24. **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.
23. **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.
22. **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.
21. 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]

20. **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.
19. 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.
18. 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.
17. **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]

16. 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.
15. **Daru, B.H.**, Yessoufou, K. & Davies, T.J. (2014) Speculation versus data-driven conclusions: A response to Gereau et al.'s "Phylogenetic patterns of extinction risk: the need for critical application of appropriate datasets". *PeerJ PrePrints* 2: e323v1.

14. 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.
13. 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.
12. 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.
11. 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.
10. Manning, J.C., Boatwright, J.S. & **Daru, B.H.** (2014) *Aloe* and goodbye: a new evolutionary classification of the Aloooids. *Alsterworthia International* 14: 7–15.

[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 Alooideae (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 Under Review

04. Daru, B.H., Bowman, E.A., Pfister, D.H. & Arnold, A.E. Capturing the diversity of endophytic fungi preserved in herbarium specimens. *Philosophical Transactions of the Royal Society B* (under review).
03. 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. Savanna tree origins and the paleoenvironment of our hominin ancestors. *Nature Plants* (under review).
02. Daru, B.H., le Roux, P.C., Gopalraj, J., Park, D.S., Holt, B.G. & Greve, M. Addressing the shortfalls in the global protected areas network for safeguarding terrestrial hotspots of evolutionary diversity. *Global Ecology and Biogeography* (under review).
01. Daru, B.H. & Yessoufou, K. Phylogenetically informed delineation of phytogeographic realms of the world. *Botany Letters* (under review).

Manuscripts in Preparation

03. Daru, B.H. Willis, C.G. & Davis C.C. Widespread homogenization of plant communities in the Anthropocene. Target journal: *Proceedings of the National Academy of Sciences USA* (90% complete in preparation).
02. Daru, B.H., Kling, M., Meineke, E.K. & van Wyk, A.E. The use of herbarium specimens for establishing long-term trends in the flowering phenology of Protea (Proteaceae). Target journal: *Applications in Plant Sciences* (80% complete in preparation).
01. Daru, B.H. & Yessoufou, K. Impact of climate change on the phylogenetic diversity of marine plants. Target journal: *Nature Climate Change* (50% complete in preparation).

Features on TV, News and Popular Media Sources

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>

PRESENTATIONS

Honorary Lecture at International Conference

Invited Plenary Speaker, "Putting phylogenetic biogeography on the map", 21st 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** (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 42nd SAAB conference, Bloemfontein, South Africa.*
- Daru BH** (2015) Analysis of climate change on flowering phenology of South African Protea (Proteaceae), *The 41st SAAB conference, Venda, South Africa.*

- Daru BH**, Holt BG, Lessard JP, Yessoufou K, Davies TJ (2015) Phylogenetic regionalization of seagrasses, *The 41st 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, *17th 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, *10th 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, *20th Congress of the Association for the Taxonomical Study of the Flora of tropical Africa (AETFAT), 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, Montreal, 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, *39th 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**, 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, *35th 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*.

TEACHING AND ADVISING EXPERIENCE

TEACHING

Assistant Professor, Department of Plant Science, University of Pretoria, South Africa (2014-16)

- **MLB 133**, Student evaluations 4.5 (out of 5.0). Molecular and Cell Biology (400 students)
- **MLB 143**, Student evaluations 4.3 (out of 5.0). Molecular and Cell Biology (400 students)

Instructor, R for Phylogenetics and Spatial Ecology, African Centre for DNA Barcoding, University of Johannesburg. 2011. 10 students

Tutor, Plant Diversity (BOT 1B), University of Johannesburg, South Africa. 200 students. I teaching assistant for practical on herbarium specimens. 2010-14.

General Biology Instructor: Comprehensive Grammar Secondary School Ogbooro, Oyo State, Nigeria (as part of National Youth Service Corp; NYSC). 2008/9

Invited Seminar

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| 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 |

ADVISING

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| 2015-present | Samantha-Leigh Jamison, MSc in Plant Science, University of Pretoria. |
| 2015-present | Sydney Ramulifho, MSc in Botany, University of Johannesburg. |
| 2015-15 | David Bower, BSc Hons, University of Pretoria. |
| 2013-14 | Lesiba Papo, BSc Hons, University of Johannesburg. |
| 2013-14 | Babatunde S. Ojelade, BSc Hons, University of Johannesburg. |

FELLOWSHIPS, GRANTS, AND AWARDS

Fellowships

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| 2016 | Harvard University Herbaria Postdoctoral Fellowship \$135,000. |
| 2014 | South African NRF-DST Innovation Doctoral Fellowship \$8200: National Research Foundation (NRF) and Department of Science and Technology (DST)'s doctoral fellowship merit award. |

Grants

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| 2016 | South African National Research Foundation Thuthuka grant \$9300 to sequence the transcriptomes for Mangrove Plant <i>Lumnitzera racemosa</i> . |
| 2015 | Genome Research Grant \$4500 from Genome Research Institute, University of Pretoria, South Africa for project to sequence transcriptomes of Mangrove Plant <i>Lumnitzera racemosa</i> . |

Academic Recognition

- 2015 **Winner – New Phytologist Poster Prize \$150** at the 35th New Phytologist Symposium: The genomes of forest trees: new frontiers of forest biology, Harvard University, USA.
- 2014 **Best PhD Oral Presentation** (gold medal) at the 10th Annual Symposium, Department of Botany and Plant Biotechnology, University of Johannesburg, South Africa.
- 2013 **Best PhD Oral Presentation** (gold medal) at the 9th Annual Symposium, Department of Botany and Plant Biotechnology, University of Johannesburg, South Africa.
- 2012 **Third Best Poster \$41** 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.

Travel Grants

- 2014 **South African National Research Foundation Travel Grant to California, USA (\$3000):** To attend the 17th Conference of the Society for Conservation GIS in Pacific Grove, California, USA.

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.
- 2003 **Nigerian National Petroleum Corporation (NNPC)/TOTAL ELF Petroleum Undergraduate scholarship (\$1912):** Full merit undergraduate scholarship by NNPC/TOTAL Petroleum. University of Jos Nigeria.

PROFESSIONAL SERVICE

Guest Editor for Scientific Journal

Guest Editor for: *Philosophical Transactions of the Royal Society B* for a theme issue: "Museum Specimens as a Roadmap for Understanding Biodiversity in the Anthropocene" (2017-date).

Peer-Review Services for Scientific Journals

Reviewer for: *Diversity and Distributions*, *Molecular Ecology*, *Molecular Ecology Resources*, *South African Journal of Botany*, *Journal of Biogeography*, *Tropical Ecology*, *Phytotaxa*, and *Botany Letters*.

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)

PROFESSIONAL DEVELOPMENT

- 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.