



THE TECHNICAL UNIVERSITY OF KENYA

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School:	Biological and Life Sciences
Department:	Applied and Technical Biology
Current Designation:	Lecturer, APPLIED AND TECHNICAL BIOLOGY (DATB)
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Consultation Hours:	8AM-5PM MON - FRI

EDUCATION

LEVEL	QUALIFICATION NAME	INSTITUTION	YEAR
Doctor of Philosophy (PhD)	PLANT TAXONOMY & ECONOMIC BOTANY	UNIVERSITY OF NAIROBI(Kenya)	2017
Masters of Science (M.Sc.)	BOTANY	UNIVERSITY OF NAIROBI(Kenya)	2012
Bachelor of Science (BSc)	BIOLOGY	UNIVERSITY OF NAIROBI(Kenya)	2010
O level/Equivalent	Kenya Certificate of Secondary Education	KITHUNGUINI SEC SCHOOL(Kenya)	2004

WORK EXPERIENCE

PERIOD	INSTITUTION	POSITION
2018 - TO DATE	TECHNICAL UNIVERSITY OF KENYA	LECTURER
2015 - 2017	TECHNICAL UNIVERSITY OF KENYA	TUTORIAL FELLOW
2013 - 2015	KENYATTA UNIVERSITY	PART-TIME LECTURER
2014 - 2015	JOMO KENYATTA UNIVERSITY OF AGRICULTURE & TECHNOLOGY	PART-TIME LECTURER
2014 - 2015	EMBU UNIVERSITY COLLEGE	PART-TIME LECTURER

CURRENT RESEARCH PROJECTS

Molecular phylogeny, biochemical systematics and antimicrobial activity of <i>Plectranthus</i> species	Plant Taxonomy, Economic Botany, Natural product Research
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SELECTED PUBLICATIONS

TITLE	LINK TO PUBLICATION	YEAR
Fredrick M. Musila, Catherine W. Lukhoba, Joseph M. Nguta, and Saifuddin F. Dossaji, "Phylogeny of Ten Kenyan <i>Plectranthus</i> Species in the <i>Coleus</i> Clade Inferred from Leaf Micromorphology, Rbcl and MatK Genes," <i>Journal of Botany</i> , vol. 2017, Article ID 4369029, 16 pages, 2017. doi:10.1155/2017/4369029	View online	2017
Musila, M.F, Dossaji, S.F., Nguta, J.M., Lukhoba, C.W., Munyao, J.M., 2013. In vivo antimalarial activity, toxicity and phytochemical screening of selected antimalarial plants. <i>Journal of Ethnopharmacology</i> 146, 557-561	View online	2013
Kaigongi, M. M., Dossaji, S.F., Lukhoba, C.W., Musila, M. F., 2014. Antimicrobial activity, Toxicity and Phytochemical Screening of Four Medicinal Plants Traditionally used in Msambweni District, Kenya. <i>Journal of Biology, Agriculture and Healthcare</i> , 4(28), 6-12	View online	2014
Kaigongi, M., Musila, M. F. (2015). Ethnobotanical study of medicinal plants used by Tharaka people of Kenya. <i>International Journal of Ethnobiology & Ethnomedicine</i> , 1(1).1-8	View online	2015
Musila,F.M., Lukhoba,C.W., Nguta,J.M. and Dossaji,S.F. 2018.Plectranthus ribulose-1,5-bisphosphate carboxylase/oxygenase large subunit-like gene, partial sequence; chloroplast. Popset.	View online	2018
Musila,F.M., Lukhoba,C.W., Nguta,J.M. and Dossaji,S.F. 2018.Plectranthus maturase K-like gene, partial sequence; chloroplast. PopSet.	View online	2018
Musila FM, Lukhoba CW, Dossaji SF, Nguta JM. 2017. "Molecular Phylogeny of ten Kenyan <i>Plectranthus</i> species in the <i>Coleus</i> clade." in <i>Proceedings of the XXI AETFAT congress;Systematics, biogeography and Conservation of African plants and fungi</i> . Catholic University of Eastern Africa, Nairobi, Kenya.	View online	2017
Ali HM, Nguta JM, Mapenay IO, Musila FM, Vincent OM, Nyak DM. Ethnopharmacological uses, biological activities, chemistry and toxicological aspects of <i>Ocimum americanum</i> var. <i>americanum</i> (Lamiaceae). <i>J Phytopharmacol</i> 2021;10(1):56-60	View online	2021
Musila, F M, Nguta JM, Lukhoba CW, Dossaji SF. 2017. Antibacterial and antifungal activities of ten Kenyan <i>Plectranthus</i> Species in the <i>Coleus</i> Clade, <i>Journal of Pharmacy Research</i> , 11(8),1003-1014	View online	2017
Hashim Ali, Joseph Nguta, Fredrick Musila, Isaac Ole-Mapenay, Dorine Matara, James Mailu, "Evaluation of Antimicrobial Activity, Cytotoxicity, and Phytochemical Composition of <i>Ocimum americanum</i> L. (Lamiaceae)", <i>Evidence-Based Complementary and Alternative Medicine</i> , vol. 2022, Article ID 6484578, 11 pages, 2022. https://doi.org/10.1155/2022/6484578	View online	2022
Matara, D. N., Nguta, J. M., Musila, F. M., & Mapenay, I. (2021). Phytochemical Analysis and Investigation of the Antimicrobial and Cytotoxic Activities of <i>Croton dichogamus</i> Pax Crude Root Extracts. <i>Evidence-Based Complementary and Alternative Medicine</i> , 2021.	View online	2021
Michael, E.S., Yole,D., Musila, M.F., Kutima, H.,Kareru, P., 2013. Assessment of Molluscicidal, Cercericidal and Miracidal Activities of Crude Extracts of <i>Azadirachta indica</i> and <i>Entada leptostachya</i> . <i>Journal of Biology, Agriculture and Healthcare</i> , 3(5), 11-17.	View online	2013
Matara DN, Nguta JM, Musila FM, Mapenay I, Ali HM, Omambia VM. Botanical description, ethnomedicinal uses, phytochemistry and pharmacological effects of <i>Croton dichogamus</i> Pax(Euphorbiaceae). <i>J Phytopharmacol</i> 2021;10(1):42-47	View online	2021
In silico exploration of Lycoris alkaloids as potential inhibitors of SARS-CoV-2 main protease (Mpro). <i>European Journal of Biological Research</i> , 12(3), 238-261. 2022.	View online	2022
Chebet, D.; Musila, F.M.; Kituyi, S.N.; Muthike, G.M.; Kaigongi, M.M. Molecular Phylogeny of Selected Kenyan <i>Eucalyptus</i> Species Inferred from MatK, rbcL and TrnL-F Genes and Their Suitability for Power Transmission Poles. <i>Diversity</i> 2022, 14, 563. https://doi.org/10.3390/d14070563	View online	2022
A versatile untargeted metabolomics-driven technology for rapid phytochemical profiling of stem barks of <i>Zanthoxylum</i> species with antioxidant and antimicrobial activities. <i>Advances in Traditional Medicine</i> , 1-17.(2022).	View online	2022
Evaluation of Pathogenicity of Entomopathogenic Oomycetes <i>Lagenidium giganteum</i> and <i>L. ajelloi</i> against <i>Anopheles</i> Mosquito Larvae, <i>Psyche: A Journal of Entomology</i> , vol. 2023, Article ID 2806034, 10 pages, 2023. https://doi.org/10.1155/2023/2806034	View online	2023
Gichuki, D.K.; Li, Q.; Hou, Y.; Liu, Y.; Ma, M.; Zhou, H.; Xu, C.; Zhu, Z.; Wang, L.; Musila, F.M.; Wang, Q.; Xin, H. Characterization of Flavonoids and Transcripts Involved in Their Biosynthesis in Different Organs of <i>Cissus rotundifolia</i> Lam. <i>Metabolites</i> 2021, 11, 741. https://doi.org/10.3390/metabo11110741	View online	2021
Effects of Land Use on the Riparian Vegetation in Mau Forest Complex in Kenya. <i>Global Ecology and Conservation</i> , e02624. doi.org/10.1016/j.gecco.2023.e02624	View online	2023