

## Curriculum Vitae

### **Biodata**

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Surname: Mwamburi  
First names: Lizzy Aluoch  
Date of Birth: July 14, 1967  
Organization: University of Eldoret  
Department: Biological Sciences  
City: Eldoret  
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### **Emp**

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#### **Associate Professor**

Department of Biological Sciences  
University of Eldoret  
August 2018 – Present

#### **Senior Lecturer**

Department of Biological Sciences  
University of Eldoret  
August 2012 – August 2018

#### **Lecturer**

Department of Biological Sciences, Chepkoilel University College  
September 1997 – August 2012

#### **Tutorial Fellow**

Department of Botany, Moi University, Eldoret.  
September 1996 – September 1997

#### **Graduate Assistant**

Department of Botany, Moi University, Eldoret.  
November 1990 – September 1996

### **Tertiary Education**

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**01 May – 31 July 2013:** 3 months Postdoc Research Fellowship (TWAS-DFG fellowship) at Georg-August University, Gottingen, Germany.

**2006 – 2009:** Doctor of Philosophy  
University of KwaZulu-Natal, South Africa.

**1992 – 1995:** Master of Agricultural Science (Plant Pathology and Plant Breeding) University of Melbourne, Australia.

**1987 – 1990:** Bachelor of Science (Botany) 1<sup>st</sup> Class Honours  
Moi University, Kenya.

### **Theses**

Mwamburi, L.A. 2009. Biological control of the common house fly (*Musca domestica*) using *Bacillus thurigiensis* (Ishiwata) Berliner var *Israelensis* and *Beaveria bassiana* (Bals.) Vuillemin in caged poultry facilities. Doctor of Philosophy Thesis

Kotonya, L.A., 1995. Pathogenesis of *Septoria apiicola* celery (*Apium graveolens* L.) Master of Agricultural Science Thesis.

Kotonya, L.A., 1990. Variation in phytoplankton species composition and biomass in Kesses Dam (Uasin Gishu District) with special reference to Cyanophyceae (Blue-green bacteria). Project submitted in partial fulfilment for the requirement of Bachelor of Science degree in Moi University, Kenya.

### **Departmental / University Responsibilities**

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#### **Field Trip Coordinator**

Department of Biological Sciences  
May 2015 – May 2017

#### **Microbiology Programme Coordinator**

Department of Biological Sciences, University of Eldoret  
Jan 2010 – August 2018

#### **Examinations coordinator**

Department of Biological Sciences  
May 2010 – May 2015

#### **Chair School of Science Curriculum Review Committee**

Jan 2010 – May 2018

#### **Patron Microbiology University of Eldoret Students' Association**

May 2015 – To Present

### **Other Responsibilities**

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#### **External Examiner**

Alupe University College, Department of Biological Sciences  
Oct 2017 – Present

#### **Kenyatta University, Department of Microbiology**

January 2018 – Present

#### **Reviewer, National Research Fund**

May 2018 – Present

## **Awards/ Fellowships**

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Equity and Merit Australian Government Scholarship  
Commonwealth Scholarship  
British Council Fellowship  
Organization for Women in Science in the Developing World Fellowship  
TWAS – DFG fellowship  
NACOSTI fellowship  
ASMCUE Leadership Grant for International Educators.

## **Professional development**

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- 18 – 20 September 2017:** Workshop ‘Project Impact Assessment’ Eldoret, Kenya
- 24 – 28 July 2017:** Workshop and Development of Short Course in ‘Gender and Agriculture’ Eldoret, Kenya
- 03 - 07 July 2017:** Workshop and Development of Short Course in ‘Climate Smart Agriculture’ Eldoret, Kenya
- 27 – 31 March 2017:** Workshop and Development of Short Course in ‘Food Security’ Eldoret, Kenya.
- 05 May – 08 June 2017:** Strategic Leadership Development Programme at Kenya Institute of Management (KIM)
- 7 – 9 December 2016:** Stakeholders Workshop for Curriculum Development and Review of MSc Food Security course for University of Eldoret
- 1 Oct 2016:** Collaborative Institutional Training Initiative (CITI) Programme. Part 1 Working with Rats in Research Settings
- 15 Oct 2016:** Collaborative Institutional Training Initiative (CITI) Programme. Part 2 Working with the The Institutional Animal Care and Use Committee (IACUC)
- 12-16 September, 2016:** DAAD-Summer School “Legal and Economic Challenges for Sustainable Food Security in the 21st Century” at the Martin-Luther-University of HalleWittenberg and the Leibniz Institute of Agricultural Development in Transition Economies (IAMO) Halle, Germany
- 29 Aug – 03 Sep, 2016:** DAAD Alumni workshop "Climate Change and Environmental Protection in East Africa, Jimma, Ethiopia
- 1 April – 12 May, 2016:** AuthorAID Course in Research Writing

- 16 November, 2015:** Annual DAAD Alumni Conference ‘Bioethics: Global Concern and Local Perspectives’, Khartoum, Sudan.
- 2 – 14 February, 2015:** International DAAD-Alumni-Seminar “Quality management along organic agri-value chains in developing countries’ Kassel University, Germany.
- 14 – 18 May 2014:** ASMCUE Leadership Grant for International Educators. ASM 21st Annual Conference for Undergraduate Educators (ASMCUE) and a pre-meeting workshop May 15-18, 2014, DoubleTree by Hilton Boston North Shore in Danvers, Massachusetts, USA.
- 29 Oct – 1<sup>st</sup> Nov 2012:** Integrity Assurance Officers Course, Chepkoilel University College, Eldoret
- 11-16 October 2004:** Intellectual Property Management Training Programme (EARP/BIOEARN), ILRI, Nairobi. .
- 1 Oct-15 Nov 2004:** World Intellectual Property Organization (WIPO) General Course on Intellectual Property.
- 16 - 20 August 2004:** Leadership Workshop for African Women in Science and Engineering (AWSE) Nairobi Safari Club, Nairobi.
- 14-18 June 2004;** Training of Integrity Assurance Officers (IAO), Egerton University
- 4-31 August 2003:** Multidisciplinary Course on Tropical Freshwater Ecosystems Conservation and Management held at KWS Naivasha, Kenya .
- 27 Sep – 1 October 1999:** Darwinian Training Course on Systematics of Microfungi, University of Nairobi, CABI.
- 8 Dec 1997-31 Jan 1998:** Molecular Biology Training course on Plant and Animal Disease Diagnostics; Fingerprinting Plant Genotypes, University of Nairobi, Kenya. Netherlands Special Biotechnology Programme and Kenya Agricultural Biotechnology Platform.
- 1–28 September 1997:** Darwinian Course in Tropical Ecology, Naivasha, Kenya. Tropical Biology Association.

## **Publications**

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### **Articles in Refereed Journals**

1. **Mwamburi, L.A.**, Onkware, A.O., and Mackambo, J. O. 2002. A survey of the potential for biological nitrogen fixation in aquatic systems of Western Kenya. In:

Challenges and Imperatives for Biological Nitrogen Fixation Research and Application in Africa for the 21<sup>st</sup> Century, Selected papers (Ed. Nancy K. Karanja and James H.P. Kahindi) pp 223-227.

2. **Mwamburi, L.A.**, M. D. Laing, and R. Miller. 2009. Interaction between *Beauveria bassiana* and *Bacillus thuringiensis* var.*israelensis* for the control of house fly larvae and adults in poultry houses. Poultry Science 88: 2307-2314.

3. **Mwamburi, L.A.**, M.D. Laing, and R. Miller. 2010. Laboratory screening of insecticidal activities of *Beauveria bassiana* and *Paecilomyces lilacinus* against larval and adult house fly (*Musca domestica* L.) African Entomology 18: 38-46.

4. **Mwamburi, L.A.**, M.D. Laing, and R. Miller. 2011. Laboratory and Field Evaluation of Formulated *Bacillus thuringiensis* var. *israelensis* as a Feed Additive and Using Topical Applications for the Control of House Fly (*Musca domestica* L.) (Diptera: Muscidae) Larvae in Caged-Poultry Manure. Environmental Entomology 40:52-57

5. Mwongula, A.W., **Mwamburi, L.A.**, Matilu, M., Siamba, D.N. and Wanyama F.W. 2013. Seroprevalence of chikungunya infection in pyretic children seeking treatment in Alupe district hospital, Busia country, Kenya. International Journal of Current Microbiology and Applied Sciences 5: 130-139.

6. Nyirahakizimana, H., **Mwamburi, L.** Wakhisi, J., Mutegi C.K., Christie, M.E. and Wagacha, J.M. 2013. Occurrence of *Aspergillus* species and aflatoxin contamination in raw and roasted peanuts from formal and informal markets in Eldoret and Kericho towns, Kenya. Advances in Microbiology 3: 333-342.

7. **Mwamburi, L.A.**, M.D. Laing, and R. Miller. 2014. Use of two formulations and two application techniques to deliver *Bacillus thuringiensis* var. *israelensis* for the control of *Musca domestica* (Diptera: Muscidae) larvae and adults in poultry houses. Biocontrol Science and Technology 24: 336- 350.

8. Chepersong, J., **Mwamburi, L.** and Kassim, M.K. 2014. Mechanism of drought tolerance in plant using *Trichoderma spp.* International Journal for Science and Research 3 (11):1592-1595.

9. Yegon, Z.C., Matasyoh, L. **Mwamburi, L.**, and Yegon, M. 2014. Prevalence of *Salmonella* in Asyptomatic food handlers in westlands, Nairobi, Kenya. International Journal for Science and Research 3 (11): 1276-1280.

10. Onyangore, F.O. Were, G.M. and **Mwamburi, L.A.** 2014. Non dietary factors associated with iron deficiencie anemia among infants aged six to nine months in Keiyo south sub-county, Kenya. International Journal for Science and Research 3 (11): 2172-2178.

11. Chepersong, J., Kiprop, E.K. and **Mwamburi, L.A.** 2014. Biocontrol of aflatoxins in corn using atoxigenic *Aspergillus flavus*: Review. International Journal for Science and Research 3 (12): 1954-1958.

12. Onyangore, F.O., Were, G.M. and **Mwamburi, L.A.** 2015. Assessing handling of complimentary foods towards prevention of iron losses among infants in Keiyo South Subcounty, Kenya. *Journal of Food Science and Quality Management* 36: 1-8.
13. Aloo, B.N., Mulei, J., and **Mwamburi, L.A.** 2015. Slow Sand Filtration of Secondary Sewage Effluent: Effect of Sand Bed Depth on Filter Performance. *International Journal of Innovative Research in Science, Engineering and Technology* 3: 15091-15099.
14. Aloo, B., Mulei, J. and **Mwamburi, L.** 2015. Evaluation of coliforms, biochemical oxygen demand and dissolved oxygen in sewage water treated by sewage stabilization ponds. *International Journal of Futuristic Research* 2:1679 – 1688.
15. **Mwamburi, L.A.**, M.D. Laing, and R. Miller. 2015. Effect of adjuvants and temperature on germination and vegetative growth of *Beauveria bassiana*. *Brazilian Journal of Microbiology* 46:67-74.
16. Jeruto, F., **Mwamburi, L.** and Wang'a, J. 2015. Distribution of Colonization Factors and Toxins among Diarrheal Children below 5Years: A Case Study of Moi Teaching and Referral Hospital, Kenya. *International Journal for Science and Research* 4: 1161-1164.
17. Wanjohi, L.W., **Mwamburi, L.**, Too, E., Aloo, B and Kosgei, J. 2015. Isolation and identification of bacteria with bioremediation potential of oil spills in Lake Nakuru, Kenya. *Asian Journal Of Microbiology, Biotechnology and Environmental Science* 17: 51-59.
18. Jeruto, P., Too, E. **Mwamburi, L.A.** and Amuka, O. 2015. An Inventory of Medicinal Plants used to Treat Gynaecological-Obstetric-Urino-Genital Disorders in South Nandi Sub County in Kenya. *Journal of Natural Sciences Research* 18:136-152.
19. Cheramgoi, E., Wanjala, F.M.E., Sudoi, V., Wanyoko, J., **Mwamburi, L.** and Nyukuri, R. (2016). Efficacy and Mode of Application of Local *Beauveria bassiana* Isolates in the Control of the Tea Weevil. *Annual Research & Review in Biology* 10: 1-8.
20. Onyangore, F.O. Were, G.M. and **Mwamburi, L.A.** 2016. Prevalence of Iron Deficiency Anaemia and Dietary Iron Intake Among Infants Aged Six to Nine Months in Keiyo South Sub County, Kenya. *African Journal of Food, Agriculture, Nutrition and Development* 16: 10884- 10897.
21. Keter, L. Too, R., Mutai, C., Mwikwabe, N., Ndwigah, S., Orwa, J., **Mwamburi, L.** and Korir, R. 2016. Bacteria Contaminants and their Antibiotic Sensitivity from Selected Herbal Medicinal Products from Eldoret and Mombasa, Kenya. *American Medical Journal* 7: 18.28
22. Nyabayo, J.C., **Mwamburi, L.** and Chemoiwa, E.J. 2016. Effects of Faecal disposal Methods on Contamination of Hand Dug Well and Spring Waters of Bomachoge Borabu Sub County, Kisii County-Kenya. *International Journal of Innovative Research and Advanced Studies* 8: 120 – 125.

23. Nyabayo, J.C., **Mwamburi, L.** and Masai, R.J. 2016. The Effects of Native Plant Species Vegetated in Constructed Wetland on Removal of Selected Pollutants in Water of Bomachoge Sub county in Kisii County – Kenya. *Journal of Biology, Agriculture and Healthcare* 6: 68-73.
24. Nyabayo, C.J., Chemoiwa, E.J., **Mwamburi, L.**, Jepkogei, R.M. and Kimutai, A. 2016. The effects of vertical and horizontal separations between pit latrine and hand dug well on contamination water by human fecal matter in Bomachoge Borabu, Kenya. *International Journal of Bioassays* 5: 4782-4790.
25. Chepersong, J., **Mwamburi, L.** and Kiprop, E. 2016. Ability of *Trichoderma harzianum* from semi-arid soils to enhance antioxidant defense of maize seedlings under water stress. *British Microbiology Research Journal* 17: 1-9.
26. Chebor J., **Mwamburi, L.A.**, Kiprop, E.K and Aloo, B.N. 2016. Use of Slow Sand Filtration to Complement Conventional Sewage Treatment Methods During Dry and Wet Seasons. *Frontiers in Environmental Microbiology* 2:18-23.
27. Chebor J., Kiprop, E.K. and **Mwamburi, L.A.** 2017. Effect of Seasonal Variation on Performance of Conventional Wastewater Treatment System. *Journal of Applied & Environmental Microbiology*, vol. 5, no. 1 (2017): 1-7. doi: 10.12691/jaem-5-1-1.
28. Keter, L., Too, R., Mwikwabe, N., Mutai, C., Orwa, J., **Mwamburi, L.**, Ndwigah, S., Bii, C. and Korir, R. 2017. Risk of Fungi Associated with Aflatoxin and Fumonisin in Medicinal Herbal Products in the Kenyan Market. *The Scientific World Journal*, Vol. 2017: 6 pages. doi.org/10.1155/2017/1892972
29. Kipng'etich, B., **Mwamburi, L.A.**, Mulei, J.M., Jeruto, P. and Chemweno, T. 2017. Antibacterial Activity of *Sida cuneifolia* Vollesen against *Staphylococcus aureus*. *Journal of Advances in Microbiology* 7(1): 1-11.
30. Kerina, A., Ngode, L., Opile, W. and **Mwamburi, L.** 2017. Response of three legumes to inorganic fertilizer application in different agroecological zones in Makueni County, Kenya. *African Journal of Education, Science and Technology* 4(1): 14-25.
31. Kerina, A., Ngode, L., Opile, W. and **Mwamburi, L.** 2017. Evaluating Productivity of Three Legume Species at Different Agro-ecological Zones of Makueni County Kenya. *African Journal of Education, Science and Technology* 4(2): 171-183.
32. Chemweno Timothy, **Mwamburi Lizzy**, Korir Richard, Mutuku Angela and Bii Christine (2018) Antimicrobial Activity and Safety of *Maesa lanceolata* for the Treatment and Management of Selected Bacterial Pathogens. *Journal of Advances in Microbiology* 8:1-8
33. Chemweno Timothy, **Mwamburi Lizzy**, Keter Lucia, Ngule Crispus, Kipng'etich Brian and Bii Christine (2018) Antifungal activity and safety of *Maesa lanceolata* for the treatment and management of selected fungal pathogens. *Journal*

of Medicinal Plant Studies 6: 215-219.

34. Chepserson Jane, **Mwamburi Lizzy** and Kiprop Ezekiel (2018) Augmented maize seed germination and seedling growth under water stress using *Trichoderma harzianum* from semi-arid soils. Plant Pathology & Quarantine 8(1): 37–46.

35. Chebor, J., **Mwamburi, L.A.** and Kiprop, E.K. (2018) Use of slow sand filtration technique to improve wastewater effluent for crop irrigation. Microbiology Research. Doi:10.4081/mr.2018.7269. (Accepted)

36. **Mwamburi, L. A.**, Laing, M. D. and Miller, R.M. (2018) External development of the entomopathogenic fungus (*Beauveria bassiana*) on the housefly (*Musca domestica*). Proceedings of the National Academy of Sciences, India Section B: Biological Sciences. (Accepted)

### **Book Chapters**

1. **Mwamburi, L.A.** 2016. Isolation and Assessment of Stability of Six Formulations of Entomopathogenic *Beauveria bassiana*. **In:** Microbial-Based Biopesticides: Methods and Protocols. (Editors: Travis R. Glare and Maria E. Moran-Diez.) ISBN: 9781493963652, ISBN 10:1493963651, Series: Methods in Molecular Biology, Humana Press Inc. USA. Volume 1477 Chapter 4. pp 85-91.

### **Conferences, Seminars and Workshops**

**Mwamburi, L.A.**, 1997. Effect of *Septoria* blight on the yield of celery. Proceedings of the National Horticultural Seminar, Progress and Prospects in Kenya's Horticulture Development Towards the Year 2000 and Beyond, pp230-237.

**Mwamburi, L.A.**, Onkware, A.O., and Mackambo, J. O. 2002. A survey of the potential for biological nitrogen fixation in aquatic systems of Western Kenya. In: Challenges and Imperatives for Biological Nitrogen Fixation Research and Application in Africa for the 21<sup>st</sup> Century, Selected papers (Ed. Nancy K. Karanja and James H.P. Kahindi) pp 223-227.

**Mwamburi, L.A.** 2002. Secondary metabolites from fungi as potential pesticides in the tropics. In: Sustainable horticultural production in the tropics (Ed. Wesonga, J.M. et al.) pp61 – 67.

**Mwamburi, L. A.** 2003. Nitrogen Fixing Cyanophyceae in Kesses Dam (Uasin Gishu District). A paper presented at the Multidisciplinary Course on Tropical Freshwater Ecosystems Conservation and Management, 4 –31 August 2003, Naivasha, Kenya.

**Mwamburi, L.A.**, 2005. Nutritional Value and Utilization of Indigenous Vegetables In Uasin Gishu District. In: Proceedings of the Third Horticultural Sustainable Workshop (Ed. Abukutsa-Onyango, M.O., A.N. Muriithi, V.E. Anjichi, K. Ngamau, S.G. Agong, A. Fricke, B. Hau and H. Stützel) pp124-127.

**Mwamburi, L.A.**, Laing, M.D., Miller, R and Morris, M.J. 2008. Laboratory and field evaluation of formulated *Bacillus thuringiensis* var. *israelensis* as a feed additive



and using topical applications for the control of house fly (*Musca domestica* L.) larvae in caged-poultry manure. A paper presented at the XXIII International Congress of Entomology, 6–12 July 2008, Durban, South Africa

**Mwamburi, L.A.** and Laing, M.D. 2009. Insecticidal activities of *Beauveria bassiana* on the house fly (*Musca domestica* L.). A paper presented at the 46<sup>th</sup> Congress of the South African Plant Pathology and 6<sup>th</sup> Congress of the African Mycological Association (AMA), 25 – 28 January 2009, Gordon's Bay, South Africa.

**Mwamburi, L.A.**, Laing, M.D., Miller, R and Morris, M.J. 2010. Biological control of the Common house fly (*Musca domestica* L.) using *Beauveria bassiana* and *Bacillus thuringiensis*. A paper presented at the Third World Organization for Women in Science Conference, 27-30 June 2010, Beijing, China.

Onaga, G., Kikafunda, J., Bigirwa, G., Asea, G., and **Mwamburi, L.A.** 2013. Effect of nitrogen, phosphorus and potassium fertilization on rainfed and supplementally irrigated upland rice production. A paper presented at the 6<sup>th</sup> International Nitrogen Conference, 18-22nd November 2013, Kampala, Uganda.

Owino, F. J., **Mwamburi, L.A.** and Waitumbi, J.N. 2013. Bacteremia and selected antibiotic resistance in patients with acute febrile illness in a rural hospital in Kenya. Mount Kenya first research innovation conference 28 – 30 August, 2013. Safari Park Hotel, Nairobi, Kenya

Owino, F. J., **Mwamburi, L.A.** and Waitumbi, J.N. 2013. Multiplex real-time PCR to identify sepsis microbes and selected antibiotic resistance genes in patients with acute febrile illness. Mount Kenya first research innovation conference 28 – 30 August, 2013. Safari Park Hotel, Nairobi, Kenya

Owino, F. J., **Mwamburi, L.A.** and Waitumbi, J.N. 2014. Screening for blood microbes and antibiotic resistance genes in patients with acute febrile illness by multiplex PCR. The 4<sup>th</sup> KEMRI Annual scientific and health conference 5-7<sup>th</sup> February 2014. KEMRI Headquarters, Mbagathi Rd. Nairobi, Kenya

**Mwamburi, L.A.**, Khayat, D and Vidal, S. 2014. Endophytic colonization of tomato by two entomopathogenic fungi for the control of *Spodoptera frugiperda* larvae. Humboldt colloquium 6-8<sup>th</sup> March 2014. Safari Park Hotel, Nairobi, Kenya.

**Mwamburi, L.A.** 2014. 21<sup>st</sup> Annual ASM Conference for undergraduate educators 15-18<sup>th</sup> May 2014. DoubleTree by Hilton Boston North Shore in Danvers, Massachusetts, USA.

Aloo, B.N., **Mwamburi, L.A.** and Mulei J. 2014. Slow sand filtration for secondary effluent stabilization. 2<sup>nd</sup> Laikipia University Conference 20-23 May 2014. Laikipia University Main Campus, Kenya.

Wanjohi, L, **Mwamburi, L.A.**, Too E., Aloo, B. and Kosgei, J. 2014. Isolation and identification of bacteria with bioremediation potential of oil spills in Lake Nakuru, Kenya. 2<sup>nd</sup> Laikipia University Conference 20-23 May 2014. Laikipia University Main Campus, Kenya.

Yegon, Z.C., Matasyoh, L.G. and **Mwamburi, L.A.** 2014. Prevalence of *Salmonella* in asymptomatic food handlers in Westlands. 2<sup>nd</sup> Laikipia University Conference 20-23 May 2014. Laikipia University Main Campus, Kenya.

Kibiro, E. **Mwamburi, L.**, Kariuki, G.M. and Sitienei, P., 2014. Management of potato blight (*Phytophthora infestans*) using arbuscular mycorrhizal fungi. Kisii University International Conference 30 July – 1 August 2014. Kisii University Main Campus. Kisii.

Onyangore, F., Were, G. and **Mwamburi, L.** 2014. Assessing bacteriological contamination during weaning to reduce incidences of diarrhea among infants aged six to nine months in Keiyo South district, Kenya. Organization of Women in the Developing World (OWSD) 5<sup>th</sup> International Conference, 17-20 September, 2014, Morelos, Mexico.

**Mwamburi, L.A.** 2015. Organic value chains of indigenous vegetable production and marketing in Kenya. 2 – 14 February, 2015. Kassel University, Germany.

Muluka, S. and **Mwamburi, L.** 2015. Evaluation of Pathogenicity of Indigenous *Beauveria bassiana* isolates towards the Nyambene weevil (*Sphrigodes mixtous*) in Kenya. The 4<sup>th</sup> International Conference –Rift Valley Technical Training Institute – Eldoret 27 – 29<sup>th</sup> May 2015. RVTTI, Eldoret.

Nzilu, B., Ottor, S., Muluka, S. and **Mwamburi, L.** 2015. Adoption of Exotic *Giricidia sepa* by farmers compared to other indigenous species at Mwala division of Machakos County. The 4<sup>th</sup> International Conference –Rift Valley Technical Training Institute – Eldoret 27 – 29<sup>th</sup> May 2015. RVTTI, Eldoret.

Aloo, B.N., Mulei, J. and **Mwamburi, L.A.** 2015. Seasonal Variations in Bacteriological and Physiological Indices in Sewage Stabilization Ponds (SSPs). 5<sup>th</sup> Annual International Conference on Innovations for Advancement of Humanity, (IFAH 2015), 17 – 19 June, 2015. The Eldoret National Polytechnic, Eldoret

Muluka, S.N. and **Mwamburi, L.A.** 2015. Laboratory Screening of *Beauveria bassiana* against Nyambene weevils (*Sphirigodes mixtous*). 2<sup>nd</sup> KIST Research Conference, 14-14 October 2015. Kiambu Institute of Science and Technology.

Mwanzia' K.S. and **Mwamburi, L.A.** 2015. Drug Resistant *Campylobacter* and *E. coli* in Pig Meat in Nairobi Abattoirs, Kenya. INWES Regional Conference, 21-23 October Kampala, Uganda.

**Mwamburi, L.A.** 2015. Bioethics in Agriculture. Bioethics:- Global Concern and Local Perspectives. 16 November, 2015. Annual DAAD Alumni Conference, Khartoum, Sudan.

Onyangore, F., **Mwamburi, L.A.** and Were, G. 2016. Assessment of dietary factors associated with iron deficiency anemia among infants aged six-nine months in Keiyo South Sub County, Kenya. 3<sup>rd</sup> International Conference on Nutrition and Growth March 17-19, 2016, Vienna Austria.

Muluka, S.N. and **Mwamburi, L.A.** 2016. Evaluation of *Beauveria bassiana* (Hyphomycetes) for Potential Biocontrol of Tea Weevils (*Entypotrachelus meyeri*). 5<sup>th</sup> Organization of Women in Science in the Developing World (OWSD) May 16-19, 2016, Kuwait.

Mwongula, A.W., **Mwamburi, L.A.**, Mwau, M., Siamba, D.N. and Wanyama, F.W. 2016. Concurrent Infections of Chikungunya Virus with Malaria and Typhoid in Children. American Society for Microbiology Microbe 2016 Conference June 16- 20, 2016, Boston, USA.

**Mwamburi, L.A.** 2016. Waste and Wastewater management in Kenya. DAAD-Alumni workshop "Climate Change and Environmental Protection in East Africa, Jimma, Ethiopia 29 Aug – 03 Sep 2016.

**Mwamburi, L.A.** 2016. Food security – Legal aspects biological control. DAAD-Summer School “Legal and Economic Challenges for Sustainable Food Security in the 21st Century” at the Martin-Luther-University of Halle-Wittenberg and the Leibniz Institute of Agricultural Development in Transition Economies (IAMO) Halle, Germany. 12 – 16 Sep 2016.

Mutuku, A., **Mwamburi, L.A.**, Mwitari, P., Ondicho, J., Korir, R. Kuria, J. and Keter, L. 2017. Antimicrobial activity of *Warburgia ugadensis* against oral pathogenic microorganisms. 7<sup>th</sup> KEMRI Annual Scientific & Health Conference (KASH) 8<sup>th</sup> – 10<sup>th</sup> February, 2017, Panari Hotel, Nairobi, Kenya.

Chemweno, T., **Mwamburi, L.A.**, Keter, L., Kipnge'tich, B., Ngule, C. and Bii, C. 2017. The antifungal activity and safety of *Maesa lanceolata* against common opportunistic fungal pathogens. 7<sup>th</sup> KEMRI Annual Scientific & Health Conference (KASH) 8<sup>th</sup> – 10<sup>th</sup> February, 2017, Panari Hotel, Nairobi, Kenya.

Tieli, M., **Mwamburi, L.A.** and Aloo, B.N. 2017. Evaluation of microbial load in sun-dried and industrially packaged silver cyprinids (*Rastrineobola argentea*). The 6<sup>th</sup> National Science Week National Commission for Science, Technology and Innovation 22-26<sup>th</sup> May, 2017, KICC, Nairobi, Kenya.

Lucia Keter, Richard Too, Nicholas Mwikwabe, Charles Mutai, Richard Korir, **Lizzy Mwamburi**, Stanley Ndwigah, Christine Bii, and Jennifer Orwa, 2018. Fungal Contamination and Mycotoxin detection of Herbal Medicines on the Kenyan Market. 8<sup>th</sup> KEMRI Annual Scientific & Health Conference (KASH) 14-16th February, 2018, Safari Park Hotel, Nairobi, Kenya.

Allan Lemtudo, **L. Mwamburi** and J.N. Waitumbi 2018. Prevalence of *Coxiella burnetii* in patients presenting with acute febrile illness at Marigat District hospital, Baringo, Kenya. 8<sup>th</sup> KEMRI Annual Scientific & Health Conference (KASH) 14-16th February, 2018, Safari Park Hotel, Nairobi, Kenya.

### **Conference Proceedings**

Wanjohi, L., Mwamburi, L., Too, E. and Kosgei, J. 2013. Bacterial diversity in Lake Nakuru and their potential utilization in agriculture and environment management.

Joint proceedings of the 27<sup>th</sup> Soil Science of East Africa and the 6<sup>th</sup> African Soil Science Society 20-25<sup>th</sup> October 2013, Nakuru, Kenya. Pg 352-364.

Aloo, B.N., Mulei, J., **Mwamburi, L.** and Ahoya, N. 2014. Reduction of bacteria and other pollutants in sewage stabilization ponds. 1<sup>st</sup> International Research Conference 29-31<sup>st</sup> October 2014. Chuka University, Chuka.

Chebor, J. **Mwamburi, L.A.** Kiprop, E.K. and Olal, F. 2015. Proceedings of the National Science Week (11 – 15<sup>th</sup> May 2015), National Commission for Science, Technology and Innovation Vision 2030. Pg 117 -121.

Kipng'etich, B., **Mwamburi, L.A.** and Rop N. 2015. *Bacillus subtilis* and its metabolic products used in the control of fungal phytopathogens: a review. Proceedings of the 1<sup>st</sup> Interdisciplinary Conference (18-19<sup>th</sup> June 2015) University of Eldoret Pg. 18 – 26.

Aloo, B.N., **Mwamburi, L.A.**, Mulei, J.M., Nyagwachi, R. 2015. Effects of sand grain size on stabilization on secondary sewage effluents using intermittent biosand filters. Proceedings of the 1<sup>st</sup> Interdisciplinary Conference (18-19<sup>th</sup> June 2015) University of Eldoret Pg. 138 – 148.

Chepkwony, G.K., **Mwamburi, L.A.** and Jeruto, P. 2015. Microorganisms as a tool of bioremediation technology in cleaning environment. Proceedings of the 1<sup>st</sup> Interdisciplinary Conference (18-19<sup>th</sup> June 2015) University of Eldoret Pg. 148 – 156.

Chemweno, T.K., Too, E. and **Mwamburi, L.A.** 2015. Microbial degradation of plastics. Proceedings of the 1<sup>st</sup> Interdisciplinary Conference (18-19<sup>th</sup> June 2015) University of Eldoret Pg. 156 – 165.

Wanjiku, A., Mbogori, E., **Mwamburi, L.A.** and Rono, S. 2015. Review on the role of viruses in cancer dynamics. Proceedings of the 1<sup>st</sup> Interdisciplinary Conference (18-19<sup>th</sup> June 2015) University of Eldoret Pg. 223 – 232.

Kerina, A., Ngode, L., Opile, W. and **Mwamburi, L.** 2016. Evaluating productivity of three legume species at different agro-ecological zones in Makueni County, Kenya. Proceedings of the 3rd Interdisciplinary Conference (IIC-3) (7-9<sup>th</sup> September 2016) University of Eldoret Pg. 15 – 22.

### **Supervision of Postgraduate Theses (Completed)**

1. Mwangula Albert (MSc): - Seroprevalence of Chikungunya infection in pyretic children seeking treatment in Alupe District Hospital, Busia, Kenya (2012)
2. Onyangore Faith Obegi (MSc): - Determination and prevalence of iron status among infants aged six to nine months in Keiyo South district (2012)
3. Owino Joel Fredrick (MSc): - Bacteraemia and selected antibiotic resistance by molecular methods in patients with acute febrile illness in a rural hospital in Marigat, Kenya (2012)

4. Nyirahakizimana Helene (MSc): - Fungal species and aflatoxin contamination in peanuts from Eldoret and Kericho (2013)
5. Wanjohi Lucy Waruguru (MSc): - Determination of bacterial load and diversity in Lake Nakuru and their ability to degrade plastics, polyethylene and oil. (2013)
6. Yegon Zeddy (MSc): - Prevalence of *Salmonella* among asymptomatic food handlers: A case study in Nairobi, Kenya (2013)
7. Aloo Becky (MSc):- Use of slow sand filtration to polish wastewater use for irrigation in Eldoret town. (2014)
8. Chebor Joel (MSc):- Efficiency of sewage treatment methods during dry and wet seasons at Kipkenyo sewage treatment plant in Eldoret municipality. (2014)
9. Kibiro, Emma Mwhaki (MSc) Management of potato late blight (*Phytophthora infestans*) using arbuscular mycorrhizal fungi. (2014)
10. Jane Chepsergon (MSc.): Influence of *Trichoderma harzianum* from semi-arid soils on maize seed germination and early seedling growth under water stress. (2015)
11. Ongwae, Zacchariah (Msc):- Antibiotic Susceptibility and Prevalence of *Campylobacter jejuni*, *Salmonella* and *Shigella* in Diarrhoeac children below five years at Kapsabet District Hospital. (2015)
12. Too Richard (MSc): - Microbial contaminants in selected herbal medicinal products from Eldoret and Mombasa, Kenya. (2015)
13. Muluka Samuel (MSc): - Evaluation of *Beauveria bassiana* (Hyphomycetes) isolates as potential bioagents for control of tea weevils (*Entypotrachelus meyeri*). (2016)
14. Kipruto Anthony Koech (MSc): Physicochemical parameters and phytoplankton community of Baharini Reservoir, Eldoret, Kenya. (2016)
15. Faith Jeruto (MSc): – Assessment of the distribution of toxins and colonization factors among diarrheal children at Moi Teaching and Referral Hospital, Eldoret, Kenya. (2016)
16. Kipnge'tich Brian (MSc) – Phytochemical composition and antibacterial effect of *Sida cuneifolia* Vollesen on selected pathogenic bacteria. (2016)
17. Makumba Billy (PhD):- *In vitro* screening of cereals rhizobacteria for antagonism against sorghum phytopathogens and their potential use in biocontrol. (2016)
18. Charles Jumbe Nyabayo (PhD):- Efficacy of constructed wetlands and sand filters in removal of selected parameters from contaminated water sources in Bamachoge Borabu, Kisii county (2016).
19. Chebon, Grace (MSc):- Prevalence of malaria parasites in patients with acute febrile illness from different eco-regions in Kenya (2017).

## **Research Projects and Collaborative Research**

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1. Effects of Soils Amended with *Beauveria bassiana*. and *Trichoderma harzianum* on the Tomato Pest (*Tuta absoluta*)  
Funders: University of Eldoret Research Grant
2. Microbial contaminants in selected herbal medicinal products in Eldoret and Mombasa  
Funders: Kenya Medical Research Institute, National Council for Science and Technology (NACOSTI)
3. Management of sorghum anthracnose using biocontrol agents produced by sorghum rhizobacteria in western Kenya  
Funders: National Council for Science and Technology (NACOSTI)
4. Efficacy of *Trichoderma spp* for the control of *Pestalotiopsis* cause of grey blight of tea.  
Funders: Crop Improvement and Management Programme, KALRO Tea Research Institute, Kenya.
5. Effectiveness of *Moringa oleifera* and charcoal filters in purification of water from unprotected sources in Kapseret division, Uasin-Gishu county, Kenya
6. Antimicrobial activity of *Warburgia ugandensis*, *Spilanthes mauritania* and *Zanthoxylum usambarensis* against oral pathogenic microorganisms.  
Funders: Kenya Medical Research Institute (KEMRI), National Council for Science and Technology NACOSTI
7. Phytochemical composition and antimicrobial properties of *Launaea cornuta*, *Maesa lanceota* and *Bidens pilosa*  
Funder: Kenya Medical Research Institute (KEMRI)
8. Phytochemical composition and antimicrobial properties of *Sida cuneifolia* Vollesen on enteric pathogenic bacteria
9. Antimicrobial activity and phytochemical composition of stinging nettle (*Urtica massaica*)
10. Role of *Azolla spp* in Nitrogen fixation in paddy fields in Western Kenya.
11. Use of salicylic acid to induce systemic acquired resistance against cassava mosaic disease (CMD) in cassava (*Manihot esculentum* Crantz.).  
Funder: Moi University Research Fund
12. Iron status among infants aged six to nine months in Keiyo South district  
Funder: NACOSTI

## **Funded Research**

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1. National Commission for Science, Technology and Innovation – Women in Science Grant (1.5M) –
2. National Commission for Science, Technology and Innovation – Postdoctoral Grant (KSh. 989, 000)
3. American Society for Microbiology Leadership Grant (\$3000).
4. University of Eldoret Annual Research Grants (KSh. 500,000)
5. The World Academy of Sciences (TWAS) Research Grant (\$32,435)

## **Affiliations**

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- Member of American Society for Microbiology (ASM)
- Member of the International Federation of University Women (IFUW)
- Member of the Horticultural Association of Kenya (HAK)
- Alumni of the Tropical Biology Association (TBA)
- Member of the International Network of Women in Science and Engineering (INWES)
- Member of the African Women in Science and Engineering (AWSE)
- Fellow and Member of the Organization of Women in Science for the Developing World (OWSD)

## **Community Service**

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1. Gave talks to girls' high schools between 2013 and 2017
2. Community health strategy in the Ministry of Health wherein our research project was encompassed towards prevention of iron deficiency anemia – my role was to assess the reduction of microbial contamination in complimentary foods to prevent iron losses at community level (the malnutrition infection cycle) 2011- 2013
3. Invitation to be the microbiology resource expert in the school of science and technology stakeholders curriculum workshop. 24- 25<sup>th</sup> June 2014.
4. Patron Microbiology University of Eldoret Student Association (MUESA) May 2015 to date.
5. American Society for Microbiology Leadership Grant for International Educators.
6. Invitation to preside over graduation Kenya Institute of Applied Sciences November 2015
7. Akili dada mentor
8. Editorial Board Environment and Natural Resources International Journal (ENRIJ) Sudan
9. External Examiner Alupe University College
10. External Examiner Kenyatta University

## **Competencies**

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Curriculum design and development, Research methodology, Experimental design, Statistical data analysis, Report writing, Qualitative research, Research ethics, Biological control, Teaching, Microsoft office, Genstat, Statistica

## Referees

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