

## CURRICULUM VITAE



### **Dennis M.W. OCHIENO (PhD)**

Senior Lecturer, Entomology, Production Ecology & Resource Conservation  
Department of Biological Sciences  
Masinde Muliro University of Science and Technology  
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## 1. PERSONAL INFORMATION

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**Date and Place of Birth** 21<sup>st</sup> December 1975, Mombasa, Kenya  
**Nationality** Kenyan

## 2. TEACHING AND RESEARCH INTERESTS

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Insect Pests and Beneficial Arthropods, Plant-Parasitic Nematodes, Plant Pathogens and Microbial Endophytes, Parasitic Weeds, Soil Biology and Fertility, Pesticides, Plant Resistance to Pests and Diseases, Biological Control, Chemical Control, Cultural Practices, Animal Ecology and Behaviour

## 3. EDUCATION

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- 2010 Doctor of Philosophy in Production Ecology & Resource Conservation, Wageningen University, The Netherlands**
- Thesis title 'Endophytic control of *Cosmopolites sordidus* and *Radopholus similis* using *Fusarium oxysporum* V5w2 in tissue culture banana'.
  - Research carried out at the International Institute of Tropical Agriculture (IITA), Namulonge, Uganda.
- 2005 Master of Science in Agricultural Entomology, University of Nairobi, Kenya**
- Thesis:- 'Studies of the potential non-target effects of *Bacillus thuringiensis* Cry1Ab toxin on two stemborer parasitoids *Cotesia flavipes* Cameron, *Xanthopimpla stemmator* Thunberg, and the butterfly *Acraea eponina* Cramer'.
  - Research carried out at the International Centre of Insect Physiology and Ecology (ICIPE), Nairobi, Kenya
- 2000 Bachelor of Education (Science), Egerton University, Njoro, Kenya**
- Graduated with Second Class Honors degree (Upper division) in Botany and Zoology.
- 1993 Kenya Certificate of Secondary Education (KCSE), St. Mary's Mundika Secondary School, Busia, Kenya**
- Kenya Certificate of Secondary Education (Mean grade B+).

## 4. WORK EXPERIENCE

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- 2021 - Present Senior Lecturer, Department of Biological Sciences, Masinde Muliro University of Science and Technology, Kakamega, Kenya**
- 2011 - 2021 Lecturer, Department of Biological Sciences, Masinde Muliro University of Science and Technology, Kakamega, Kenya**
- Teaching, research and student supervision.
  - Coordination of postgraduate studies at the School of Natural Sciences.
- 2010 - 2011 Part-time Lecturer, School of Biological Sciences, University of Nairobi**
- Teaching and student supervision.

- 2009 - 2010      **Honorary Lecturer, School of Biological Sciences, University of Nairobi**
- Teaching and research.
- 2005 - 2006      **Consultant, International Institute of Tropical Agriculture (IITA), Namulonge, Uganda**
- Developed a proposal on the effect of crop management on performance of endophytic *Fusarium* spp. in tissue culture banana against the banana weevil *Cosmopolites sordidus* (Germar) and nematodes in Uganda.
- 2004 - 2005      **Technician, International Centre of Insect Physiology and Ecology (ICIPE), Nairobi, Kenya**
- Investigated the effect of *Bacillus thuringiensis* toxins on the development of parasitoids of the cereal stem borer (*Chilo partellus*).

## 5. APPOINTMENTS

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- 2020 - 2021      **Appointment to the County Technical Committee of Access to Benefits and Sharing of Genetic Resources**
- To create linkages with the community and researchers through relevant SDGs in matters relevant to access, benefit and sharing of genetic resources as per Nagoya Protocol 2014 among other roles
- 2020 - 2021      **Appointment to the Webometrics Management Committee**
- To champion initiatives to improve MMUST rankings globally, regionally and locally among other tasks
- 2018 - 2019      **Director, Corporate Communications & Marketing**
- Improving Webometrics Ranking
  - Communication and Web Content Updates
  - Coordinating Public Relations, Community Liaisons, Marketing, Alumni Activities
  - University Event Organization and Management
- 2014 - 2018      **Coordinator, Busia ODeL Centre**
- Management of Academic Programs
  - Human Resource Management
  - Financial Management
  - Teaching
- Nov 2014      **Internal Quality Auditor of the MMUST**
- Planning, scheduling, executing and reporting on quality audit activities in accordance to ISO 9001:2008 standards and relevant statutory and regulatory requirements.
  - Follow up on non-conformities and corrective actions.
- Nov 2013      **Quality Assurance Representative, Faculty of Science (MMUST)**
- Improving standards of products and services in the faculty
- Oct 2013      **Chairperson, Editorial Committee, 4th African Conference on Edible and Medicinal Mushrooms (MMUST)**
- Publishing Book of Abstracts and conference proceedings
- Jun 2013      **Chairperson, ICT, Department of Biological Sciences (MMUST)**
- Developing website for the department
- Jul 2012      **Chairperson, Faculty of Science Graduate Studies Committee (MMUST)**
- Coordinating postgraduate studies, process research proposals and theses
- Apr 2012      **Chairperson, Department of Biological Sciences Graduate Studies Committee (MMUST)**
- Coordinating postgraduate studies, process research proposals and theses

## 6. TRAINING AND WORKSHOPS

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- Nov 2020**      **Institutional Workshop on Research Capacity among Academic Members of Staff in MMUST**
- Attendant
- Apr 2015**      **Induction workshop for Deans of Faculties, Directors, Co-ordinators and Heads of Departments**, Masinde Muliro University of Science and Technology, 28<sup>th</sup> to 29<sup>th</sup> April 2015, Bishop Stam, Kakamega, Kenya
- Nov 2014**      **ISO 9001:2008 Internal Quality Auditors training according to ISO 19011:2011**, Apex Management Systems Consultants Limited in partnership with Kenya Bureau of Standards, 3<sup>rd</sup> to 12<sup>th</sup> November 2014, Bishop Stam, Kakamega, Kenya
- Jun 2014**      **Workshop for Curriculum Development, Review and Implementation** for the Faculty of Science, Masinde Muliro University of Science and Technology, 24<sup>th</sup> June 2014, Kakamega, Kenya
- Jan 2014**      **University Multiplication Training Workshop on Curriculum Development and Review for Public Universities in Kenya: Implementation and Accreditation**, Masinde Muliro University of Science and Technology, 23<sup>rd</sup> to 24<sup>th</sup> January 2014, Kakamega, Kenya
- Jul 2012**      **Research and Proposal Writing Training Workshop**, Kenya DAAD Scholars Association, German Academic Exchange Service (DAAD), National Council for Science and Technology (NCST), Masinde Muliro University of Science and Technology, 25<sup>th</sup> to 27<sup>th</sup> July 2012, Kakamega, Kenya
- Jun 2012**      **IRD/IFS Workshop on Applying for Research Funding** at the The African Academy of Sciences (AAS), 28<sup>th</sup> May to 1<sup>st</sup> June 2012, Nairobi, Kenya
- Aug 2006**      **Molecular and Evolutionary Ecology**, Netherlands Institute of Ecology (NIOO), Heteren, The Netherlands
- The training comprised of practical skills in set-up plant-insect studies, basic molecular laboratory skills and data analysis
- Aug 2003**      **Biostatistics Course**, International Centre of Insect Physiology and Ecology (ICIPE), Nairobi, Kenya
- Trained on experimental designs and layouts, data entry, analysis (SAS software), and interpretation of results.
- Mar 2002**      **Taxonomy of African Cereal Stem Borers and their Natural Enemies**, International Centre of Insect Physiology and Ecology (ICIPE), Nairobi, Kenya
- Identification of lepidopteran cereal stemborers and their dipteran and hymenoptan parasitoids by morphological characteristics using identification keys.
  - Insect specimen collection and preservation methods.
  - Rearing of stem borers and parasitoids on natural and artificial diets.
  - Sampling techniques for cereal stem borer infestation on cereal crops and wild hosts.
- Jul 2001**      **Global Crop Protection Federation (GCPF) Course on Safe Use of Pesticides**, Agrochemical Association of Kenya (AAK), Nairobi, Kenya
- Trained in safe use and handling of agrochemicals at a course held at the Department of Zoology, University of Nairobi, Nairobi, Kenya.
- Nov 2002**      **GMO Guidelines Project Workshop**, International Centre of Insect Physiology and Ecology (ICIPE), Nairobi, Kenya
- Participated in writing of book chapter.
  - Trained on biosafety principles on the adoption of transgenic crops.
- Apr 2001**      **First Technical Workshop on Kenyan Pollinators Initiative**, National Museums of Kenya (NMK), Nairobi, Kenya

- Development of strategies for conservation of pollinator biodiversity in ecosystems.

## 7. CONFERENCES ATTENDED

- July 2018**      **First Biophysical Society (BPS) Sponsored Conference on Harnessing Scholarly Biophysical Potential in Africa**, Masinde Muliro University of Science and Technology
- Key Speaker
- June 2018**      **First Pan African International Research Congress**  
Grand Royal Swiss Hotel, Kisumu, Kenya
- Organizing Sub-Committee on Publicity
  - Production of Congress Newsletters
- Oct 2017**      **Agroecological Methods to Promote Innovative Banana Production Systems**,  
Agropolis International, Montpellier, France
- Presented “Effects of Endophytic Non-Pathogenic *Fusarium oxysporum* V5w2 and Mulching on Field-grown Tissue Culture Banana Plants and Root Infection by *Radopholus similis*”
- Jun 2016**      **The Role of Higher Education in Improving Agricultural Livelihoods and Economic Development in Busia County**, Busia Agricultural Training Centre, Kenya.
- Main Event Organizer
- Jun 2015**      **The International Conference on New Paradigms in National and International Security**, Masinde Muliro University of Science and Technology / Educational Management Society of Kenya (EMSK), Kakamega, Kenya
- Presented “Towards Biosecurity curriculum and facilities for bioterrorism and biocrime management in Africa”
- May 2014**      **The 4<sup>th</sup> African Conference on Edible and Medicinal Mushrooms (ACEMM IV)**,  
Masinde Muliro University of Science and Technology, Kakamega, Kenya
- Served in the National Organizing Committee
  - Chaired the Editorial Board
  - Co-authored presented papers
- Jan 2013**      **The First International Conference on Pesticidal Plants**, Egerton University /  
International Centre of Insect Physiology and Ecology, Nairobi, Kenya.
- Oral presentation
- Oct 2008**      **The First International Banana Conference 2008**, International Institute of Tropical  
Agriculture, Mombasa, Kenya
- Poster Presentation
- Jul 2007**      **13th International Symposium on Insect-Plant Relationships**, Swedish University of  
Agricultural Sciences, Uppsala, Sweden
- Presented a poster

## 8. STUDENT RESEARCH SUPERVISION

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### 8.1 Doctorate Research

#### ONGOING PROJECTS

**Edwin Karoney.** Diversity of *Fusarium* species infecting common bean and the interaction with root nodulating Rhizobia (In preparation). PhD. Crop Protection, Masinde Muliro University of Science and Technology.

**Mark Wanyonyi.** Chemical composition, antioxidant and free radical scavenging activity of three propolis samples of meliponula stingless bees. PhD. Chemistry, Masinde Muliro University of Science and Technology. *Co-supervisors: Prof. Maurice V.O. Omolo, Department of Pure & Applied Chemistry (MMUST), Prof. Paul Tarus, Department of Chemistry, University of Eldoret, Kenya.*

**Douglas Mosoti.** Characterization of the Maize Lethal Necrosis Virus infecting Maize in Western Kenya. PhD. Crop Protection, Masinde Muliro University of Science and Technology. Co-supervisor: Dr. John Muoma, Department of Biological Sciences, MMUST.

## 8.2 Master of Science Research

### 8.21 ONGOING PROJECTS

**Develyne Musani.** Host range and arthropodous natural enemies of the invasive yellow sugarcane aphid *Sipha flava* in Western Kenya. Co-supervisor: Dr. Dennis Omayio, Department of Biological Sciences, MMUST.

**Elizabeth K. Mwendu.** Phytochemical-based pharmaceutical products for secondary microbial infections associated with the jigger flea *Tunga penetrans*. Co-supervisor: Prof. Maurice Omolo, Department of Pure and Applied Chemistry, MMUST.

### 8.22 COMPLETE PROJECTS

**Edwin Karoney 2019.** Phytochemical influence on host-mediated interactions between diazotrophic *Rhizobium* species and *Colletotrichum lindemuthianum* in common bean. Co-supervisor: Dr. Danstone Baraza, Department of Pure and Applied Chemistry, MMUST.

**Celestine N. Manyasi 2018.** Integrated *Striga hermonthica* management in maize using water hyacinth composts combined with carotenoid expression and imazapyr seed treatment. MSc. Crop Protection, Masinde Muliro University of Science and Technology. Co-supervisor: Dr. Francis N. Muyekho, Department of Biological Sciences, MMUST.

**Pamela Mwikali 2018.** Belowground influence of farmer-produced composts on soil biota, foliar pests and yields of common bean (*Phaseolus vulgaris*) in Western Kenya. MSc. Crop Protection, Masinde Muliro University of Science and Technology. Co-supervisor: Prof. Philip Wandahwa, School of Agriculture, Veterinary Science and Technology, MMUST.

**Benard Kharinda 2013.** Phenotypic characterization of bean genotypes for resistance to anthracnose disease in western Kenya. MSc. Crop Protection, Masinde Muliro University of Science and Technology. Co-supervisor: Dr. Reuben Otsyula, Kenya Agricultural and Livestock Research Organization (KALRO), Kakamega, Kenya.

**Edith Avedi 2013.** Efficacy and safety of *Fusarium oxysporum* in the biological control of *Striga hermonthica* parasitizing maize in western Kenya. MSc. Crop Protection, Masinde Muliro University of Science and Technology. Co-supervisor: Dr. Sammy Ajanga, Kenya Agricultural and Livestock Research Organization (KALRO), Kakamega, Kenya.

**Emily Nakhumicha Wamalwa 2013.** Screening of Napier and other susceptible grasses for resistance to Napier Stunt disease. MSc. Crop Protection, Masinde Muliro University of Science and Technology. Co-supervisor: Dr. Charles Midega, International Centre for Insect Physiology and Ecology (ICIPE), Mbita-Point, Kenya.

**Eric B. Luvonga 2015.** Diversity and pollination efficiency of flower visiting insects associated with avocado along the slopes of Taita Hills in Kenya. MSc. Environmental Biology, Masinde Muliro University of Science and Technology. Co-supervisor: Dr. Mary Gikungu, National Museums of Kenya, Nairobi.

**Jared K. Ngurwe 2014.** Integration of *Allium cepa* extracts and farmyard manures in the control of *Aphis fabae* and *Tetranychus evansi* infesting *Solanum nigrum* cultivars in western Kenya. MSc. Entomology, University of Eldoret. Co-supervisor: Prof. Fredrick M.E. Wanjala, University of Eldoret, Kenya.

**Maurice M. Olukwo 2014.** Efficacy of Emerald Gold and Loyalty pesticides on the tobacco pests *Bemisia tabaci* and *Myzus nicotianae* in western Kenya. MSc. Crop Protection, Masinde Muliro University of Science and Technology. Co-supervisor: Dr. Sammy Ajanga, Kenya Agricultural and Livestock Research Organization (KALRO), Kakamega, Kenya.

## 8.3 Bachelors of Science Projects

## COMPLETED PROJECTS

- Juliana Nakintu 2008.** Occurrence of soilborne microbes invading roots of tissue culture bananas inoculated with endophytic *Fusarium oxysporum* V5W2. BSc. Project, Makerere University. Supervisors: Dr. Dennis M.W. Ochieno, Dr. Mary Rwakaikara Silver (Makerere University).
- Mwaniki John Gitonga 2010.** Development of biopesticides. BSc. Project, University of Nairobi. Supervisors: Dr. Dennis M.W. Ochieno, Dr. Benson Wamalwa (University of Nairobi).
- Rose Khainza 2008.** Effect of soil biotic factors on parasitism by *Radopholus similis* and nitrogen nutrition in bananas. BSc. Project, Makerere University. Supervisors: Dr. Dennis M.W. Ochieno, Dr. Herbert Talwana (Makerere University).
- Victoria Naluyange 2008.** Effect of nitrogen on banana parasitism by the root-burrowing nematode *Radopholus similis*. BSc. Project, Makerere University. Supervisors: Dr. Dennis M.W. Ochieno, Dr. Herbert Talwana (Makerere University).

## 8.4 Theses Examined

### 8.41 EXTERNAL EXAMINER

- Robert Nyukuri Wanjala 2014.** Phytogeography of stemborer species of *Zea mays* L. and *Sorghum bicolor* L. and their refugia in Trans-Nzoia. PhD in Agricultural Entomology, University of Eldoret, Kenya.

### 8.42 INTERNAL EXAMINER

- Clement E. Nadio 2020.** Assessment of *Prosopis juliflora* on Plant Diversity and its roles in Livestock Production in Turkana County. MSc. Environmental Science, Masinde Muliro University of Science and Technology, Kenya.
- Patrick O. Odhiambo 2019.** Distribution and Characterization of Cowpea Mild Mottle Virus (CMMV) in Western Kenya. MSc. Crop Protection, Masinde Muliro University of Science and Technology, Kenya.
- Christine I. Matindu 2019.** Microbial Profiles of Soils Under Different Cropping Systems in Western Kenya. MSc. Microbiology, Masinde Muliro University of Science and Technology, Kenya.
- Aggrey K. Osogo 2013.** Occurrence, distribution and virulence of cassava brown viruses in western Kenya. MSc. Crop Protection, Masinde Muliro University of Science and Technology, Kenya.
- David W. Wosula 2015.** Effect of bean varieties and maize intercropping on *Aphis fabae* damage in Western Kenya. MSc. Crop Protection, Masinde Muliro University of Science and Technology, Kenya.
- Dennis O. Omayio 2013.** Resistance of Napier grass *Pennisetum purpureum* accessions to head smut pathogen *Ustilago kamerunensis*. MSc. Crop Protection, Masinde Muliro University of Science and Technology, Kenya.
- Fredrick Wotia 2012.** Relationship between maize stemborer (*Busseola fusca*) infestation and ear rot diseases on quality and yield losses in western Kenya. MSc. Crop Protection, Masinde Muliro University of Science and Technology, Kenya.
- Justus N. Wekesa 2014.** Antimicrobial compounds and volatiles from Oyster mushroom and *Spirulina plantensis*. MSc. Chemistry, Masinde Muliro University of Science and Technology, Kenya.
- Martin Y. Karani 2013.** Screening of new maize hybrids for resistance and tolerance to stemborers in western Kenya. MSc. Crop Protection, Masinde Muliro University of Science and Technology, Kenya.
- Maryrose N. Kithinji 2012.** Genetic diversity and detection of *Pythium* root rot resistance genes among *Phaseolus vulgaris* cultivars in Kenya. MSc. Crop Protection, Masinde Muliro University of Science and Technology, Kenya.
- Paul A. Nyamwamu 2013.** Occurrences, transmission and genetic variability of Potato Virus Y (PVY) in Kenya. MSc. Crop Protection, Masinde Muliro University of Science and Technology, Kenya.

## 8.5 PUBLICATIONS

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## 8.51 SCIENTIFIC JOURNALS

1. **Dennis M.W. Ochieno**, Edwin M. Karoney, Edward K. Muge, Evans N. Nyaboga, Danstone L. Baraza, Solomon I. Shibairo and Victoria Naluyange (2021) Rhizobium-linked nutritional and phytochemical changes under multitrophic functional contexts in sustainable food systems. *Frontiers in Sustainable Food Systems*. doi: 10.3389/fsufs.2020.604396.
2. **Ochieno, D.M.W.**, 2020. Towards consensus on the transfer of *Fusarium oxysporum* V5w2-enhanced tissue culture banana technology to farmers through public-private partnerships in East Africa. *Scientific African*, p.e00605.
3. Karoney, E.M., **Ochieno, D.M.W.**, Baraza, D.L., Muge, E.K., Nyaboga, E.N. and Naluyange, V., 2020. Rhizobium improves nutritive suitability and tolerance of *Phaseolus vulgaris* to *Colletotrichum lindemuthianum* by boosting organic nitrogen content. *Applied Soil Ecology*, 149, p.103534.
4. Baraza, D.L., Naser, W., Korir, C.J., Juma, B.F., **Ochieno, D.**, Kamau, R.W., Osogo, A.K., Heydenreich, M. 2016. Antimicrobial Coumarins from the Oyster Culinary-Medicinal Mushroom, *Pleurotus ostreatus* (Agaricomycetes), from Kenya. *International Journal of Medicinal Mushrooms* 18(10): 905–913.
5. Avedi, E.K., **Ochieno, D.M.W.**, Ajanga, S., Wanyama, C., Wainwright, H., Elzein, A., Beed, F. 2014. *Fusarium oxysporum* f. sp. *strigae* strain Foxy 2 did not achieve biological control of *Striga hermonthica* parasitizing maize in Western Kenya. *Biological Control (Elsevier)* 77: 7-14.
6. Naluyange, V., **Ochieno, D.M.W.**, Maingi, J.M., Ombori, O., Mukaminega, D., Amoding, A., Odendo, M., Okoth, S.A., Shivoga, W.A., Muoma, J.V.O. 2014. Compatibility of *Rhizobium* inoculant and water hyacinth compost formulations in Rosecoco bean and consequences on *Aphis fabae* and *Colletotrichum lindemuthianum* infestations. *Applied Soil Ecology (Elsevier)* 76: 68-77.

## 8.52 BOOK CHAPTERS

1. Naluyange, V., **Ochieno, D.M.W.**, Wandahwa, P., Maingi, J.M., Ombori, O., Mukaminega, D., Amoding, A., Odendo, M. and Muoma, J.V., 2020. Performance of Mwitmania bean under the influence of nitrogen-fixing Rhizobium inoculant, water hyacinth composts and DAP fertilizer in a field infested with *Aphis fabae* and *Colletotrichum lindemuthianum*. In *Just Enough Nitrogen* (pp. 125-138). Springer, Cham.
2. Muoma, J.O., **Ochieno, D.M.W.**, Alakonya, A.E. 2012. Farmers in Sub-Saharan Africa cry for tightly closed ear drooping maize phenotypes. *Maize Genetics Cooperation Newsletter* vol. 86.
3. Birch, A.N.E., Wheatley, R., Anyango, B., Arpaia, S., Capalbo, D., Getu, E., Fontes, D.E., Kalana, P., Lelmen, E., Lovei, G., Melo, I.S., Muyekho, F., Ngi-Song, A., **Ochieno, D.M.W.**, Ogwang, J., Pitelli, R., Schuler, T., Sétamou, M., Sithanatham, S., Smith, J., Van Son, N., Songa, J., Sujii, E., Tan, T.Q., Wan, F-H., Hilbeck, A. 2004. Biodiversity and non-target impacts: a case study of Bt maize in Kenya. In: Hilbeck, A and Andow D.A. (Eds). *Environmental Risk Assessment of Genetically Modified Organisms, Volume 1: A Case Study of Bt Maize in Kenya*. CABI, Wallingford, UK, pp. 117–185.

## 8.53 CONFERENCE PROCEEDINGS

1. Wamalwa, E.I.N., Midega, C.A.O., Ajanga, S., Omukunda, E.N., **Ochieno, D.M.W.**, Omayio, D., Muyekho, F.N., Mulaa, M., Khan, Z. 2013. Napier grass accession 16789 is tolerant to Napier stunt disease (*Phytoplasma* 16SrXI) constraining dairy industry in western Kenya/Eastern Africa. *Eastern Africa Agricultural Productivity Project (EAAPP) Mini Conference*, KARI Naivasha, 12th - 15th November 2013.

## 8.54 ABSTRACTS



1. Mwikali, P., **Ochieno, D.M.W.**, Wandahwa, P., Naluyange, V., Baert, G. 2018. Farmer-produced compost boosts maize (*Zea mays*) production in Western Kenya. First Pan African International Research Congress on Knowledge Generation and Dissemination, Kisumu, Kenya.
2. **Ochieno, D.M.W.** 2016. Effects of Endophytic Non-Pathogenic *Fusarium oxysporum* V5w2 and Mulching on Field-grown Tissue Culture Banana Plants and Root Infection by *Radopholus similis*. X International Symposium on Banana: ISHSPromusa Symposium on Agroecological Approaches to Promote Innovative Banana Production Systems. International Society of Horticultural Scientists, 10-14 October 2016, Agropolis International, Montpellier, France.
3. Omayio, D.O., Luvonga, E.B., **Ochieno, D.M.W.**, Muoma, J.O. 2014. Potential of water hyacinth formulations as substrates for the cultivation of white oyster mushroom *Pleurotus ostreatus*. 4<sup>th</sup> African Conference on Edible and Medicinal Mushrooms (ACEMM), Golf Hotel, Kakamega, Kenya. Book of Abstracts pp. 48.
4. Wanjiru, M.W., Mbuvi, J.K., Omayio, D.O., Mayaka, M.N., Ondieki, S.K., Ndirangu, M.W., **Ochieno, D.M.W.**, Muoma, J.O. 2014. Potential of water hyacinth compost as a substrate for cultivation of *Agaricus bisporus* mushroom. 4<sup>th</sup> African Conference on Edible and Medicinal Mushrooms (ACEMM), Golf Hotel, Kakamega, Kenya. Book of Abstracts pp. 49.
5. Omayio, D.O., Muoma, J., **Ochieno, D.M.W.**, Muyekho, F.M., Mukoye, B., Ajanga, S. 2013. Endophytes contribution *in vivo* to the resistance of *Ustilago kamerunensis* establishment in Napier grass *Pennisetum purpureum* accessions. *The 13<sup>th</sup> Workshop on Sustainable Horticultural Production in the Tropics*, 3<sup>rd</sup>-6<sup>th</sup> December 2013, Meru, Kenya. Book of Abstracts pp. 12-13.
6. Omolo, M.O., Ateya, S., Adhiambo, J.V., **Ochieno, D.M.W.** 2013. Bioprospecting for phytochemical control agents of the stored product pest, *Prostephanus truncatus* (Horn) (Coleoptera: Bostrichidae) from some western Kenya flora. *The First International Conference on Pesticidal Plants*, 21<sup>st</sup>-24<sup>th</sup> January 2013, ICIPE, Kenya. Book of Abstracts pp. 132.
7. **Ochieno, D.M.W.** 2013. Monitoring tools for endophytic microorganisms used for crop improvement. Environmental and Development Conference on 'Linking Environmental Research to Kenya's Development Agenda and Vision 2030', 9<sup>th</sup>-12<sup>th</sup> April 2013, Nairobi, Kenya. Book of Abstracts pp. 17.

#### 8.55 THESES

1. **Ochieno, D.M.W.** 2010. Endophytic control of *Cosmopolites sordidus* and *Radopholus similis* using *Fusarium oxysporum* V5w2 in tissue culture banana. Ph.D. Thesis, Wageningen University.
2. **Ochieno, D.M.W.** 2005. Studies of the potential non-target effects of *Bacillus thuringiensis* Cry1Ab toxin on two stemborer parasitoids *Cotesia flavipes* Cameron, *Xanthopimpla stemmator* Thunberg, and the butterfly *Acraea eponina* Cramer. M.Sc. Thesis, University of Nairobi.

#### 8.56 ACKNOWLEDGEMENTS

1. **Akello, J.**, Dubois, T., Coyne, D., Gold, C.S., Kyamanywa, S. 2007. Colonization and persistence of the entomopathogenic fungus, *Beauveria bassiana* in tissue culture banana. In: Z.A. Kasem, M.M. Addel-Hakim, S.I. Shalabi, A. El-Morsi and A.M.I. Hamady, Editors, Proceedings of the eighth African Crop Science Society Conference, October 27–31, 2007, El-Minia, Egypt, Quick Color Print, El-Minia, Egypt (2007), pp. 857–861 (Reviewer).
2. **Ayuke, F.O.**, Brussaard, L., Vanlauwe, B., Sixd, J., Lelei, D.K., Kibunja, C.N., Pulleman, M.M. 2011. Soil fertility management: Impacts on soil macrofauna, soil aggregation and soil organic matter allocation. *Applied Soil Ecology (Elsevier)* 48: 53–62 (Statistical Analysis).
3. **Dubois, T.**, Gold, C.S., Paparu, P., Athman, S., Kapindu S. 2006. Tissue culture and the *in vitro* environment. Enhancing plants with endophytes: potential for ornamentals? In: Teixeira Da Silva, J. (Ed.). *Floriculture, ornamental and plant biotechnology: advances and topical issues*, 1st edition. London, UK, Global Science Books, pp. 397-409 (Reviewer).

4. **Gitau, C.W.**, Gurr, G.M., Dewhurst, C.F., Nicol, H., Fletcher, M. 2011 Potential for biological control of *Zophiuma butawengi* (Heller) (Hemiptera: Lophopidae) in coconut and oil palms using the hymenopterans *Ooencyrtus* sp. (Encyrtidae) and *Parastethynium maxwelli* (Girault) (Mymaridae). *Biological Control (Elsevier)* 59: 187-191 (Reviewer).
5. **Liu, S.**, Rao, A., Vinson, S.B. 2014. Biological Control in China: Past, present and future – An introduction to this special issue. *Biological Control (Elsevier)* 68: 1-5 (Reviewer).
6. **van Leur, H.**, Raaijmakers, C.E., van Dam, N.M. 2008. Reciprocal interactions between the cabbage root fly (*Delia radicum*) and two glucosinolate phenotypes of *Barbarea vulgaris*. *Entomologia Experimentalis et Applicata (John Wiley & Sons)* 128: 312–322 (Researcher).

#### 8.57 MEDIA FEATURES

1. The Daily Nation Newspaper. Study faults new banana technology. Nation Media Group Kenya, 28th March 2011.
2. The Daily Nation Newspaper. Banana technology safety queried. Nation Media Group Kenya, 2nd June 2011.
3. The New Vision Newspaper. Is it wise to inoculate bananas? The New Vision Group, Uganda, 10th May 2011.
4. The New Vision Newspaper. Is 'Foxy' safe for banana plants? The New Vision Group, Uganda, 14th June 2011.
5. The New Vision Newspaper. Tissue culture can improve agriculture production. The New Vision Group, Uganda, 23rd May 2011.
6. The New Vision Newspaper. Disease-resistant bananas are ideal. The New Vision Group, Uganda, 21st June 2011.
7. The Science Times. Credibility of banana scientists under attack.

### 9. RESEARCH GRANTS

1. **URF-MMUST 2020**. Innovations for integrated control of Covid-19 among vulnerable populations with underlying predisposing respiratory diseases (Ochieno PI) (KES 5,000,000)
2. **AAU 2018**. Phytochemical influence on host-mediated interactions between diazotrophic *Rhizobium* species and *Colletotrichum lindemuthianum* in common bean. Association of African Universities (Karoney, E.M., PC/6) (KES 200,000).
3. **NRF 2017**. Bio-prospecting for phytochemical repellants and bio-pesticides of the jigger flea *Tunga penetrans* from the western Kenya flora. National Research Fund (Omolo, M.) (KES 17.5M)
4. **URF 2016**. Centre for African Medicinal and Nutritive Flora and Fauna. University Research Fund. (Omolo, M.) (KES 3M)
5. **IFS 2015**. Relationships between *Rhizobium leguminosarum*, *Colletotrichum lindemuthianum* and *Aphis fabae* in common bean. International Foundation for Science (Naluyange, V., IFS Grant C5681-1) (USD 12,000).
6. **NACOSTI 2012**. Phenotypic characterization of advanced bean lines for resistance to anthracnose. National Council for Science and Technology (Kharinda, B., NCST/5/003/3<sup>rd</sup> CALL M.Sc/084) (KES 200,000).
7. **NRF 2016**. Chemical compositions, antimicrobial, antimosquito and antioxidant properties of *Meliponula stingless* bee propolis. National Research Fund (**Wanyonyi, M.**) (KES 2 million)

### 10. CONSULTANCIES

- Kenya Standing Technical Committee for Imports and Exports (KSTCIE), KEPHIS

### 11. AWARDS

- Elsevier Certificate of Excellence in Reviewing in Recognition of an Outstanding contribution to the quality of Biological Control Journal.

## 12. PROFESSIONAL AFFILIATION

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2001 – Present      Entomological Society of Kenya  
2018 – Present      Biophysical Society of Kenya

## 13. PROFICIENCIES

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**Language**

- English: Fluent in reading writing, and speaking
- Kiswahili: Native language; fluent in reading, writing and speaking

**Computer**

- Word, Excel, Power point
- Statistics software (SAS)

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## 14. REFEREES

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