


Academic Staff Profile

Personal Details

<p>Name: Dr. Nchore Bonuke</p> <p>Title/Qualification: PhD</p> <p>Department: Plant Sciences</p> <p>Designation/Position: Lecturer</p> <p>Email: bonuke.shem@ku.ac.ke</p> <p>Contact Address: Box 43844, 00100, Nairobi</p> <p>Area of Specialization: Plant Pathology/Plant Nematology</p> <p>Research Interests:</p> <p>- Plant disease Diagnosis & Management</p> <p>Google Scholar: https://scholar.google.com/citations?user=MMSf4a8AAAAJ&hl=en&authuser=1</p> <p>ORCID ID: https://orcid.org/0000-0002-7152-7032</p>	
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Academic & Professional Qualifications

2013 - 2016 Kenyatta University (KU), Nairobi, Kenya

Doctor of Philosophy (PhD) in Plant Pathology (Nematology)

2008 - 2012 Kenyatta University (KU), Nairobi, Kenya

Master of Science Plant Pathology (Nematology)

2002 – 2007 Kenyatta University (KU), Nairobi, Kenya

Bachelor of Education Science (Hons)

Employment History

- ☒ 2016 – Date Lecturer, Department of Plant Sciences, Kenyatta University.
- ☒ 2014 – July 2016 Tutorial Fellow, Department of Plant Sciences, Kenyatta University.
- ☒ 2013 - 2014 Part-time Lecturer, Department of Plant Sciences, Kenyatta University.
- ☒ 2009-2012 St. Appolonuhs Secondary School, Thika.
- ☒ 2006 – 2009 Kenyatta Girls Secondary School, Thika, Kenya.

Conference/Workshops/Seminar Papers

- ☒ Waswa, Stanous Juma; Waceke, J.W. & Nchore, S.B. (2021). Responses of Tree Tomato Varieties to Root-Knot Nematodes. In: The 5th KIBU International Conference (Virtual) on 15th and 16th June 2021, organized by Kibabii University.
- ☒ Incidence and Prevalence of root-knot nematodes *Meloidogyne* species on selected indigenous leafy vegetables in Kisii and Trans-Mara counties of Kenya at the 12th biennial conference, KARI (published).

- ⊗ Use of agro-industrial wastes and organic amendments on the management of root-knot nematodes in *Solanum nigrum* in selected parts of Kenya at the 10th ACSS Conference, Maputo, Mozambique, 10-13 October, 2011 (Published).
- ⊗ Use of Farmers Practises in the Management of Root-knot Nematodes on Indigenous Vegetables in Kenya, Nov. 2010. (Abstract and Poster).
- ⊗ Response of African leafy vegetables to *Meloidogyne* spp. in Kenya (at the aGRO 2011-Inaugural Biennial Conference, College of Agriculture and Veterinary Sciences, University of Nairobi, Nairobi, The paper was submitted for Review and Publication in the Journal of Today's Biological Sciences Research & Review (JTBSRR) on May 2013 and published in Vol. 2, Issue 1, page 1-12, June 30, 2013.
- ⊗ Efficacy of Selected agro-industrial Wastes in Managing Root-knot nematodes on Black nightshade in Kenya (at the 1st PACN Congress on Agricultural Productivity and Paper submitted for publishing by ISRN on 29th April 2012, accepted on 31st July and published on October, 2012 in Agronomy).
- ⊗ Incidence, Prevalence & Management of Root-knot Nematodes (*Meloidogyne* spp.) on Selected Indigenous Leafy Vegetables in Kisii and Trans-Mara Counties, Kenya (The 25th Postgraduate Seminar at K. University)

Exhibitions

- ⊗ Oct. 2015 Kenyatta University @30 “Embracing Culture in a Digital Age” Exhibition, 5th – 18th October, 2015 at Kenyatta University, Nairobi – Kenya.
- ⊗ Nov. 2010 Pan African Agribusiness and Agro-industry Consortium (PanAAC) and Universities, Business and Research in Agribusiness and Innovation (UNIBRAIN) Fair, 26th – 27th November 2010, Hilton Hotel, Nairobi – Kenya.

Student Co-authored Publications

1. Malaka S. M, Alwora G. O, **Nchore S. B.** Efficacy of Two New Fungicides Against *Colletotrichum kahawae* Infecting Coffee in Kenya. *Curr Agri Res* 2021; 9(2). Available from: <https://bit.ly/3jnn4bT>. DOI: <http://dx.doi.org/10.12944/CARJ.9.2.03>
2. Nyang’au, D, Atandi, J., Cortada, L., **Nchore, S.**, Mwangi, M. and Coyne, D. 2021. Diversity of nematodes on banana (*Musa* spp.) in Kenya linked to altitude and with a focus on the pathogenicity of *Pratylenchus goodeyi*. *Nematology*, 1-11. DOI 10.1163/15685411-bja10119.
3. Waswa, S.J., Waceke, J.W. and **Nchore, S.B.** 2020. Occurrence and Abundance of Phytonematodes in Tree Tomato (*Solanum betaceum* Cav.) Farming Systems in Kenya. *Researchjournali’s Journal of Agriculture Vol. 7 | No. 7 August | 2020*. <http://www.researchjournali.com/pdf/5605.pdf>
4. Waswa, S.J., Waceke, J.W. and **Nchore, S.B.** 2020. Diversity of Plant Parasitic Nematodes of Tree Tomato (*Solanum betaceum* Cav.) In Kiambu and Embu Counties, Kenya. *Middle East Journal of Agriculture Research* vol. 9 (3), 605-616.
5. Angeline Chepkemboi, John Maingi, **Shem Nchore:** 2020. Evaluation of Selected Common Bean Genotypes for their Reaction to *Xanthomonas Campestris* Pv. *phaseoli* in Kakamega County, Kenya **Abstract** (ID 323): [Web-Version](#) (html).
6. Chepkemboi, A., Maingi, J.M. and **Nchore, S.B.** 2020. Screening of common bean genotypes for resistance against *Xanthomonas campestris* pv. *phaseoli* in Kakamega County, Kenya. *European Journal of Biology*, 5(1): 16-27. **ISSN 2520-4738 (Online)**.
7. Njeru, E.M., Morris Muthini, M., Muindi, M.M., Ombori, O., **Nchore, S.B.**, Runo, S. and Maingi, J.M. 2020. Exploiting Arbuscular Mycorrhizal Fungi-Rhizobia-Legume

- Symbiosis to Increase Smallholder Farmers' Crop Production and Resilience Under a Changing Climate. In: Singh, B.R., Safalaoh, A., Amuri, A.N., Eik, L.O., Sitaula, B.K. and Lal, R. (Eds.). Climate Impacts on Agricultural and Natural Resource Sustainability in Africa. Springer Nature Switzerland AG. Pp. 470-488. <https://doi.org/10.1007/978-3-030-37537-9>
8. Muchemi, PK., Kamau, J.W., **Nchore, S. B**, Mathew P. N, Kimaru, S.K. Mwangi. JW, Joyce.W, Florence. M. 2019. Genetic Response of Selected Maize Germplasm Screening for MLND Resistance in Kenya. Kenyatta University Biennial research and innovation Conference, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.
 9. Muchemi, PK, Kamau, J.W., **Nchore, S. B**, Mathew P. N, Kimaru, S.K., Mwangi, JW., Waithira, J., Munguti, F. 2019. The relationship between level of education, Farmers varietal prevalence, control and distribution of Maize Lethal Necrosis in Bomet County. Kenyatta University Biennial research and innovation Conference, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.
 10. Muchemi, PK., Kamau, JW., **Nchore, S. B**, Omwoyo, RO., Kimaru, SK., Mathew, PN. 2019. The use of low Tissue Culture Technology towards food sustainability in Kenya. Kenyatta University Biennial research and innovation Conference, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.
 11. Muchemi, PK., Kamau, JW., Mathew, P.N., **Shem, B.N.** and Mwangi, JW., Kimaru, SK. 2018. The current status of Maize Lethal Necrosis Disease in Nyandarua County, Kenya, Horticultural Association of Kenya
 12. Muchemi PK, Kamau, JW., **Shem, B.N.**, Mathew. PN. Omwoyo, RO., Kimaru, SK., 2018. The use of low Tissue Culture Technology towards food sustainability in Kenya. RUFORUM Biennial Conference.
 13. *Peter Shango, Nchore, S.B and Mwangi M. 2019. Assessment and Detection of Maize Chlorotic Mottle Virus Stability in Maize Seeds in Kenya, Kenyatta University Biennial research and innovation Conference, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.*
 14. *Waswa, S.J., Waceke, J.W. and Nchore, S.B. 2019. Occurrence and Abundance of Plant Parasitic Nematodes on Tree Tomato (*Solanum Betaceum* Cav.) in Kiambu and Embu Counties, Kenya. Kenyatta University Biennial research and innovation Conference, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.*
 15. *Nyang'au, D, Atandi, J., Cortada, L., Nchore, S., Mwangi, M. and Coyne, D. Occurrence, Abundance and Distribution of Plant Parasitic Nematodes Associated with Bananas (*Musa* Spp.) at Different Altitudes in Kenya. Kenyatta University Biennial research and innovation Conference, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.*

Research

- 2018-date Virulence, Diversity and Management of *Fusarium oxysporum* f.sp. *cubense* infecting Bananas in Tharaka Nithi County, Kenya.
- 2017-2021 Occurrence, Abundance and Distribution of Plant Parasitic Nematodes Associated with Bananas (*Musa* Spp.) at Different Altitudes in Kenya.
- 2017-2020 Management of Plant Parasitic Nematodes on Tree Tomato (*Solanum Betaceum* Cav.) in Kiambu and Embu Counties, Kenya.
- 2016-2017 Efficacy of Two New Fungicides Against *Colletotrichum kahawae* Infecting Coffee in Kenya.

- 2016-2021 Characterization and biocontrol of pathogenic microorganisms associated with commonly grown banana cultivars in Embu, Kisii and Nyamira counties of Kenya.
- 2016-2020 Assessment and detection of maize chlorotic mottle virus stability in maize seeds in Kenya.
- 2016-2020 Management of common bean genotypes for resistance against *Xanthomonas campestris* pv. *phaseoli* in Kakamega County, Kenya.
- 2013-2016 Management of Root-Knot Nematodes (*Meloidogyne* spp.) on African Nightshades in Selected Parts of Kenya.
- 2009-2012 Incidence, prevalence and management of root knot nematodes (*Meloidogyne* spp.) on selected indigenous leafy vegetables in Kisii and Trans-Mara counties, Kenya.

Funded Projects

- ☒ Erasmus+ Programme 2020 for Capacity Building in Higher Education ‘Nematology Education in Sub-Saharan Africa-NEMEDUSSA’. Our Erasmus+ grant agreement number 618814-EPP-1-2020-1-BE-EPPKA2-CBHE-JP.
- ☒ Exploiting arbuscular mycorrhizal fungi-rhizobia-legume tripartite symbiosis to increase crop production and resilience in semi-arid tropics of Kenya. **Vice Chancellor research grant 2017**
- ☒ Management of plant parasitic nematodes associated with bananas in banana production areas, Kenya. **IITA & ICIPE Duduville Centre, Nairobi**
- ☒ Characterization and Non-Chemical Management of Root-Knot Nematodes (*Meloidogyne* spp.) on African Nightshades in Selected Parts of Kenya. **HORTINLEA -a funding initiative for global food security (GlobE) of the German Federal Ministry of Education and Research and the German Federal Ministry for Economic Cooperation and Development**

Conferences/Workshops/Seminars Attended

- Oct. 2021 Short traineeship on Nematode Diversity organized by Erasmus+ Programme 2020 for Capacity Building in Higher Education ‘Nematology Education in Sub-Saharan Africa-NEMEDUSSA’
- Sept 2021 Virulence and Diversity of *Fusarium oxysporum* F.sp. *Cubense* Infecting Bananas in Tharaka Nithi County, Kenya. Tropentag 2021, hybrid conference: Towards shifting paradigms in agriculture for a healthy and sustainable future, September 15 - 17, 2021, organised by University of Hohenheim, Germany.
- Sept 2021 Nyanga’u D, Maina M, Nchore SB, Coyne D. Diversity of nematodes of banana (*Musa* spp.) in Kenya with reference to altitude and banana types. In: 3rd Phytosanitary Conference Virtual Edition ‘Enhancing phytosanitary systems for healthy plants, safe and sustainable trade’, Nairobi, 13-16th September 2021.
- Sept 2021 Shango P, Maina M. Nchore SB. Assessment and detection of maize chlorotic mottle virus stability in maize seeds in Kenya. In: 3rd Phytosanitary Conference Virtual Edition ‘Enhancing phytosanitary systems for healthy plants, safe and sustainable trade’, Nairobi, 13-16th September 2021.

- July 2021 Transformative Research Supervision Webinar. Organized by AFELT, on 30th July 2021.
- July 2021 Commercialization of Research Virtual workshop. By Prof. Thomas Bayer, Vice President of Internationalization and Transfer and Director of Africa Institute and Centre for Research on Service Sciences (CROSS), Neu-Ulm University of Applied Sciences. Organized by Director, Innovation Incubation & University-Industry Linkages, On July 13th and 14th July 2021.
- June 2021 The 5th KIBU International Conference (Virtual) on 15th and 16th June 2021, “Mitigating The Post Covid-19 Impact On The Realization Of Sustainable Development Goals” Organized By Kibabii University, Bungoma, Kenya, from June 15-16 2021.
- May 2021 Global Research Ethics: Workshop for University-based Researchers in Africa. Organized by University of Edinburgh, UK, 28th May 2021.
- May 2021 Research Webinar III Programme: Transforming how we Develop Research Capacity in Institutions of Higher Learning (Teaching Research Methods Remotely). Organized by AFELT, on 26th May 2021.
- Feb - Mar. 2021 Short traineeship on Nematode Diversity organized by Erasmus+ Programme 2020 for Capacity Building in Higher Education ‘Nematology Education in Sub-Saharan Africa-NEMEDUSSA’
- Sep - Oct. 2020 Cyber Security Awareness Course at Kenya Education Network, Nairobi, Kenya.
- Sep. 2020 Tropentag 2020 virtual conference: Food and Nutrition Security and its resilience to Global Crises, ATSAF E.V, Germany, 9-11 September 2020.
- Oct. 2019 Kenyatta University Biennial research and innovation Conference “Research and Innovation for the achievement of the SDGs and Kenya’s Big Four Agenda”, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.
- Jun. 2019 NEMEDUSSA Project Proposal Development Workshop, held from 17th – 18th June 2019 at ICIPE Duduville Campus, Nairobi, Kenya.
- Mar. 2019 Training on ‘Theory of Change’, Kenyatta university, Nairobi on 15th March 2019
- Mar. 2019 Campus-Nexus training, Kenyatta University, Nairobi on 19th March 2019
- Mar. 2019 Sensitization training on university website and staff profile updates, Kenyatta University, Nairobi from 4th -18th March 2019
- Mar. 2019 E-Learning training for Lecturers, Kenyatta University, Nairobi on 7th March 2019.
- Feb. 2019 Leadership training, Kenyatta University, Nairobi on 21st February 2019 from 2-4 pm.
- Nov. 2018 ENABLE Horticulture Project organized by Kenyatta university, KEFAAS, NRF and KALRO, held at Kenyatta University, Nairobi on 22nd November 2018.
- Nov. 2018 Campus-Nexus training, Kenyatta university, Nairobi on 8th November 2018.
- Sept. 2018 IBP content development training, Kenyatta university, Nairobi on 10th September 2018.

- Sept. 2018 Seminar on Ecology of tree endophytes, by Prof. Suryanarayanan, Kenyatta university, Nairobi from 6th -10th September 2018.
- Sep. 2017 Tropentag 2017 conference “Future Agriculture: Social-ecological transitions and bio-cultural shifts”, 20th – 22nd September, 2017 in Bonn, Germany.
- Jul. 2017 Grant writing training, held at Kenyatta University, Nairobi from 26th – 27th July 2017.
- Jun. 2017 Seminar on intellectual property rights, held at Kenyatta University, Nairobi on 28th June 2017.
- May 2017 Publishing-connect-ku-Elsiever Author workshop, held at BSSC Room 14, Kenyatta University, Nairobi on 19th May 2017.
- Oct. 2016 RUFORUM Fifth Biennial Conference 2016, Cape Town, South Africa, 17-21 October 2016.
- Mar. 2016 Vegetable standards and audit at Real IPM Thika, Kenya from 18th – 19th March 2016.
- Nov. 2015 2nd International Conference on Biodiversity for Food and Nutrition, 23rd November, 2015 at Safari Park Hotel, Nairobi, Kenya.
- Sep. 2015 Tropentag 2015 conference on ‘Management of land use systems for enhanced food security, conflicts, controversies and resolutions’, 16th – 18th September, 2015 in Berlin, Germany.
- Sep. 2015 HORTINLEA Summer School, 2015, held at Werbellin, Berlin, Germany from 8th – 13th September 2015.
- Aug. 2015 Soil degradation, Root health and Food security in Africa: How will future crop production systems impact Nematology and soil ecology research? Held on 3rd August, 2015 (The year of soil) at ICIPE, Nairobi, Kenya.
- Nov-Dec. 2014 Molecular diagnostics at Humboldt University of Berlin from 3rd Nov – 12th Dec. 2014.
- Sep. 2014 HORTINLEA Summer School, 2014, held at Kenyatta University, Nairobi, Kenya from 4th – 11th September 2014.
- Jun. 2013 Program for Training of Academic Members of Staff, School of Pure and Applied Sciences, Kenyatta University Held at Student Business Centre from 10th – 13th June 2013.
- Nov. 2012 ‘Applying Research To Regional Challenges Of Leadership and Citizenship’ During the 25th Postgraduate Seminar Held at Business and Student Services Centre, Kenyatta University From 27th – 29th November 2012.
- Jun. 2012 PACN–INASP Workshop on Scientific Writing & Grant Application, University of Nairobi, Chiromo Campus 4-6 June 2012.
- Mar. 2012 Successfully facilitated a farmers and extension officers workshop and Training on Diagnosis and Management of Major Biotic Stressants of Agricultural Crops organized by The Gatsby Charitable Foundation, NIESA, RUFORUM and School of Agriculture and Enterprise Development, Kenyatta University held on 9th and 10th March 2012 at KUCC, Kenyatta University.

- Mar. 2012 Nematology seminar at International Livestock Research Institute (ILRI) HUB on Thursday 8th March 2012 from 2.00 pm to 6.00 pm.
- Nov. 2011 1st PACN Congress on Agricultural Productivity, 21-23rd November, 2011 in Accra, Ghana.
- Sept. 2011 aGRO 2011-Inaugural Biennial Conference from 26-28 September, 2011. (Presented a paper).
- Nov. 2010 12th KARI Biennial Scientific Conference 2010 from 8-12 Nov. (Presented a paper).
- Nov. 2010 Pan African Agribusiness and Agro-industry Consortium (PanAAC) and Universities, Business and Research in Agribusiness and Innovation (UNIBRAIN) Fair, 26th – 27th November 2010, Hilton Hotel, Nairobi – Kenya.
- Mar 2010 Training course on Plant Nematode Diagnostic; Nematode Sampling, Extraction, Application of Morphology and Taxonomy in Identification, Management of Nematodes and Biostatistics in Nematology, held at the Department of Plant and Microbial Sciences, Kenyatta University and organized by KU and KARI.
- Jul 2008 Training course on the marking of Chemistry and Biology Examinations, Chania High School, Thika.

Supervision of Postgraduate Students

Masters

- Chepkemboi Angeline (2017-2020): Phenotypic characterization of common bean genotypes for resistance to *Xanthomonas campestris pv. phaseoli* constraining bean production in Western Kenya (Msc). Graduated.
- Waswa, Stanlous Juma (2018-2021): Occurrence of Plant Parasitic nematodes on Tree Tomato Plant (*Solanum betaceum* Cav.) and the Efficacy of Bio-control Agents in Kiambu and Embu Counties, Kenya (Msc). Graduated
- Kamau Harun Mwangi (2019- Date): Management of *Colocasia esculenta* post-harvest decay with extracts from selected herbs and tea wood-ash in Kiambu county, Kenya (Msc).
- Kamore Harrison Kibe (2018- Date): M.Sc Project-Characterization and biocontrol of pathogenic microorganisms associated with commonly grown banana cultivars in Embu, Kisii and Nyamira counties of Kenya (Msc).
- Malaka Musine Samwel (2018- Date): Virulence, Diversity and Management of *Fusarium oxysporum* f.sp. *cubense* infecting Bananas in Tharaka Nithi County, Kenya (Msc).
- Nyairo Daniel Omwoyo (2018-Date): Efficacy of crude extracts of selected plant species in the management of *Fusarium* wilt of tomato in Kilifi County, Kenya (Msc).
- Nyang'au Nyagwonda Douglas (2016-2021): Occurrence, abundance and distribution of plant parasitic nematodes associated with bananas in banana production areas, Kenya (Msc).

- Masoka Isaac Mogaka (2016-Date): Evaluation of upland rice genotypes for resistance and tolerance against *Striga hermonthica* in Western Kenya (Msc).
- Peter Shango (2017-2021): Assessment and detection of maize chlorotic mottle virus stability in maize seeds in Kenya (Msc).

Ph. D

- Muchemi Kariuki Peterson (2015-2021): Molecular characterization of maize germplasms and screening for resistance to maize lethal necrosis disease in Nyandarua County, Kenya (PhD).
- Mavuze Maxwell Mbalanya (2018-Date): Occurrence and management of plant parasitic nematodes on sugar beets (*Beta vulgaris* L.) using compost manure in Nyandarua, Kenya (PhD).

Administrative Positions Held

October 2020-date: School of Pure & Applied Sciences Collaboration committee member

Sept 2020 – date: Chairperson, Occupational safety and health committee

October 2019: Acting Chairman, Department of Plant Sciences

Nov 2018- Jan 2019: Acting Chairman, Department of Plant Sciences

July 2016 – July 2020: Examinations coordinator, Department of Plant Sciences

July 2016- 2020: Chairperson Examination moderation committee

July 2016- 2020: Chairperson, marks verification committee

July 2016- 2020: Committee member, staff appraisal and recruitment committee

July 2016- date: Committee member, research and Innovation

July 2016- 2020: Committee member, Quality management and safety committee

Sept 2016- 2020: Intellectual property rights Departmental representative