Rose Kigathi

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EDUCATION

2006-2011	**Ph.D.,** Friedrich-Schiller-University, Jena, Germany. ***Thesis**:* Speaking in context: The effect of plant species diversity on emission of volatile organic compounds from *Trifolium pratense* (L.).
2003-2005	**M.Sc.**, International Horticulture Leibniz University Hannover, Hannover, Germany ***Major*: Phytopathology and Entomology**.
1999-2001	**B.Sc.,** Horticulture Jomo Kenyatta University of Agriculture and Technology (J.K.U.A.T).
1996-1998	**Diploma**, Horticulture Jomo Kenyatta University of Agriculture and Technology (J.K.U.A.T).

WORK EXPERIENCE

Oct 2016- present **Research Fellow**, John Innes Center, Department of Crop Genetics.

- Bioinformatic analysis of genome sequences of an array of global strains of wheat stem rust.

Jan 2013-Present **Lecturer**, Department of Biological Sciences, Pwani University.

- Teaching: Ecology, Plant Pathology, Plant Physiology, Eco-physiology, Introduction to biostatistics using R.
- Research/student projects: Variability of coastal ecosystems, effect of plant species richness on rhizo-bacterial diversity, role of plant growth promoting bacteria on disease control, effects of integrated manure application on pepper metabolites.

Jan -May 2012 **Postdoctoral Fellow**, Max Planck Institute for Chemical Ecology, Department of Biochemistry and Technische Universität München, Department of Ecology and Ecosystem management.

- Statistical analysis, paper writing and data presentation at international conferences.
- Extraction and analysis of secondary plant metabolites.

2006-2011 **Graduate research**, Friedrich-Schiller-University Jena and Max Planck Institute for Chemical Ecology, Department of Biochemistry.

- Collection and analysis of volatile organic compounds emitted from grassland plants both under field and laboratory conditions
- Statistical analysis of data, report and scientific paper writing, and data presentation at international and local conferences.
- Organized field practical experiments for under graduate students.

2003-2006 **Graduate research**, Leibniz University Hannover, Germany.

- Wrote grant proposal.

- Performed insect behaviour experiments, data analysis and presentation

2002-2003 **Research trainee**, International Centre for Insect Physiology and Ecology (I.C.I.P.E), Kenya.

- Studied the effect of natural products (e.g neem, pepper extracts) on control of cabbage aphids in field and laboratory trials.
- Report writing, data collection, analysis and presentation.

ADMINISTRATIVE DUTIES

2013- Sept. 2016 **Coordinator**, Curricula Development Committee- Department of Biological Sciences.

- Worked on upgrading of 4 programmes, BSc. Microbiology, BSc. Zoology, BSc. Botany and Diploma Applied Biology
- Initiated work on MSc. Programs in Immunology and MSc. Ecology

2014 – present **Chair,** Interim committee coordinating the building of collaboration between LAFARGE Ecosystems

- Resulted in the signing of the Memorandum of Understanding between LAFARGE Ecosystems and Pwani University

2015 - present **Member**, Pwani University ISO 9001:2008 Committee

PUBLICATIONS

Kigathi, R. N., Weisser, W. W., Veit, D., J., Gershenzon, J., Unsicker, S. B., (*In prep*). Plant volatile emission depends on species richness and composition of neighbours in the plant community. (Plant Cell and Environment).

Kigathi, R. N., Weisser, W. W., Veit, D., J., Gershenzon, J., Unsicker, S. B., (2013). Plants suppress their emission of volatiles when growing with conspecifics. Journal of Chemical Ecology, 39:537–545.

Kigathi, R. and Poehling, H. M., (2012). UV-absorbing films and nets affect the dispersal of western flower thrips, *Frankliniella occidentalis* (Thysanoptera: Thripidae). Journal of Applied Entomology. 136:761–771.

Kigathi, R. N. , Unsicker, S. B., Reichelt, M., Kesselmeier, J., Gershenzon, J., Weisser, W. W., (2009). Emission of volatile organic compounds after herbivory from *Trifolium pratense* (L.) under laboratory and field conditions. Journal of Chemical Ecology, 35, 1335-1348.

Loxdale HD, **Kigathi R. N.,** Weisser W., (2009): Paucity of microsatellite genotypes (MLGs = 'clones') in tansy aphids. Redia - Giornale di Entomologia 92, 51-56.

SELECTED CONFERENCES AND SYMPOSIA

Kigathi R., Weisser W.W., Reichelt M., Gershenzon J., and Unsicker S. B. (2016). Plant volatile emission depends on species richness and composition of the neighboring plant community. Alexander von Humboldt Conference. Naivasha Kenya (**Talk**).

Kigathi R., Weisser W.W., Reichelt M., Gershenzon J., and Unsicker S. B. (2016). Plants suppress their emission of volatiles when growing with conspecifics. European Conference of Tropical Ecology. Göttingen, Germany (Poster).

Kigathi R., Weisser W.W., Reichelt M., Gershenzon J., and Unsicker S. B. (2016). Plant volatile emission depends on species richness and composition of the neighboring plant community. Gordon Research Seminars (GRS) on Plant Volatiles. Ventura Beach Marriott in Ventura CA., United States (Poster).

Kigathi R. (2012). Plant species richness alters emission of volatile organic compounds. The future of biodiversity research in Africa: Scope, Opportunities, Collaboration, Access and Benefit Sharing. Taita Taveta University College, Voi, Kenya. (Talk).

STUDENT SUPERVISION

Author and Thesis Title	Status
Obiero, Maurice. MSc. Fisheries: Effect of initial handling on quality and shelf life of shrimps caught by artisanal fishermen in north coast Kenya. (Since 2016)	Field Work
Mohamed Seif Landi. MSc. Env. Sci. Assessing the structural variability of mangrove forests in the Kenyan coast. (Since 2016)	Thesis Write up
Farrah, Caroline Nyavula. MSc. Agronomy. The effect of organic and inorganic fertilizer combinations on growth, yield and quality of *Capsicum frutenscens* in Kilifi County. (Since 2015)	Second Field Season
Amur Afara Abdallah. MSc. Env. Sci. Impacts of elephant confinement on forest structure, ground flora and regeneration in Arabuko Sokoke Forest. (Since 2015)	Data Analysis (Objective 2)
Mugi, Simon. MSc. Microbiology. Bio-control of damping-off in tomato seedlings using *Pseudomonas flourescens.*(Since 2015)	Thesis Completed
Ngala Dorah Kavumbi. MSc. Microbiology. Bacteriological and parasitological quality assessment of drinking water source supplies in urban, peri-urban and rural area of Kilifi County, Kenya. (Since 2014)	Deferred

PROFESSIONAL ASSOCIATIONS

1) Horticultural Association of Kenya (HAK)
2) Ecological Society of America (ESA).
3) Nature Kenya.

AWARDS/SCHOLARSHIPS

1. 2015-2017-African Women in Agricultural Research and Development (AWARD). Fellowship.
2. 2006-2010-International Max Planck Research School (IMPRS). Scholarship.
3. 2003-2005-German Academic Exchange (DAAD). Scholarship.