


Daystar University Staff Profile: Dr. Martha Wanjiku Kiarie

<p>1. Name:</p>	<p>Martha Wanjiku Kiarie (-Makara)</p> <p>PhD (Medical Entomology: Environmental Health: Kosin University, South Korea M.Sc. Pest Ecology, Kenyatta University, B.Ed. Science (Hons)</p>
<p>2. Photo:</p>	
<p>3. Job Title and Responsibilities:</p>	<p><i>Dean School of Science, Engineering & Health- Daystar University</i> Leadership, Planning and administration of academic and student activities, Curriculum development and review Management and application of the School annual budget</p> <p>Teaching and Research in Public Health, Medical Entomology, Pest Ecology, Research Methods in Sciences; Practicum and attachment, field supervision of students, Ethical Review, Supervision of master's and PhD students.</p>
<p>4. Biography (About Me):</p>	<p>I am an experienced, focused, self-driven and goal-oriented academician with a teaching career that span of over 28 years. Was a graduate Biology and Chemistry teacher in various high schools in Kenya where I reached the rank of a Deputy Head teacher. I taught at the Kenya Science Teachers College 1991-1997 (now the Kenya Science Campus of the University of Nairobi) as a teacher trainer for Biology and Chemistry teachers for Kenya high schools. I have an experience of over 22 years of teaching, research and administration experience at university level in Kenya. I have experience of teaching outside Kenya, 2006-2010 I taught at Kosin University, South Korea.</p> <p>I have the following skill; administration and management in education, Strategic planning, Crisis Communication for Administrators, Grant proposal writing,</p>

Editing for Scientific Writing and Publication, Research Governance and Management, Research methods in Public Health Ethics, Bio-Ethics –Proposal and Protocol Review, Quality Assurance and Quality Control and Planning for excellence in teaching and learning.

Professional membership in American Mosquito Control Association, American Entomological Society, Korean Entomological Society and Women in Science and Engineering.

Editorial Boards Memberships; Associate Editor: Journal of Applied and Basic Zoology,

Editor - Kosin R University Journal of Health Sciences, Indian Journal of Vector Borne Diseases, Scientific Committee Member and Editor 3rd ICC2019 (3rd International Conference on Climate Change (ICCC 2019) by The International Institute of Knowledge Management (TIKM) in Kuala Lumpur Malaysia, February 2019).

I am the current Dean School of Science Engineering and health (2014 to Date) of Daystar University, Senior Lecturer in Environmental Health and Biomedical Sciences in the School of science Engineering and Health of Daystar University, Head of Department and Lecturer, Dept. of Science and Engineering (,2003-2006, 2010-2014), Exchange lecturer (, Dept. of Medical & Environmental Health, Kosin University 2006—2010, Co-Ordinator Pre-University program of Daystar University 1999--2005

My research experience is grounded in Medical Entomology with interest in the biological aspects of vectors of human diseases including (but not limited to) malaria and Leishmaniasis control through vector and parasite control. Of interest is research in the development of botanical/biological repellents. My research output has been published in reputable peer-reviewed journals and presented at conferences locally and internationally.

Awards/Honors

January 2010, I was awarded a commendation and a certificate for the best research in medical entomology by the Entomological Society of Korea, June 2010, acknowledged for excellence in teaching and learning by Centre for Excellence in Teaching and Learning (CETL) of Daystar University, in 2007 awarded the Presidential award/scholarship of Kosin University award for PhD study in Medical Entomology, and earlier in 2001, 2002 and 2003: 2010, 2015 awarded with the Star of Excellency Award (SOEA) of Daystar University, as the best lecturer

in Science and Pre-University departments, by DUSA. In 1989-1991 awarded DAAD scholarship to pursue M.Sc. studies in Pest ecology.

5. Academic Qualifications:

Academic Qualification	Year of award	Institution	Thesis Title
PhD- in Environmental Health-Medical Entomology	2010	Kosin - Busan, South Korea (2007-2010)	Dynamics of larval Control, Personal Protection and manipulations of physical parameter of temperature against vector mosquitoes; <i>Culex pipiens</i> complex and <i>Ochlerotatus togoi</i> (Diptera: Culicidae)
M.Sc.—in Pest Ecology, Pest effects in Food security	1992	Kenyatta University (1990-1992)	Factors that influence food palatability, choice, reproduction and swarming in the African Desert Locust, <i>Schistocerca gregaria</i> Forskal.
Research Ethics	2016	University of Nairobi	Kenya Vaccines Initiative Research ethics and management
Ch	2017	Nazarene University, Nairobi	Environmental Impact assessment expert qualification
CITI Biomedical Research - Certificate	2018	Kenya Medical Research Institute	www.citiprogram.org/verify/?kfc53f82e-2b87-40f7-bc9e-2f3ed8d2182f-27629057
CITI Program course: Conflict of Interest in research	2019	Kenya Medical Research Institute	Managing Ethical issues and conflict of interest in Research

<p>6. Research Interests:</p>	<p>2016-2017, STEM grant ; an ODA grant in collaboration with Queen Mary University (UK), on teaching and innovation in STEM, to develop locally made Dye-based Solar cells by students and faculty/Co-PI.</p> <p>2013-Feb 2017: Daystar-HFF-Three Pronged- Vector and Disease control of Neglected Disease -Leishmaniasis; HFF grant for three years to carry out a research work on control of leishmaniasis in Baringo County; Kenya. Collaboration with Scientists from KEMRI. Co-PI</p> <p>Medical Entomology; study of insects with human health and Environmental impacts: mosquitoes, cockroaches and sand flies. Particularly interested in the ecology, seasonal distribution and activities of mosquitoes and Phlebotomine flies involved in the transmission of Malaria and leishmaniasis diseases to humans and animals.</p>
<p>7. Publications:</p>	<p>Refereed Journals Articles</p> <p>Kiarie Martha. W., Lando Agnes L., (2019) The Impact of Communication and Persuasive Advertising of “Natural” And “Sugar-Free” Products on Prevention and Management of Diabetes in Kenya: A Critical Reflection of Scientific Analyses of Dietary Components and Natural Products, a research paper for the ICA , Australia</p> <p>Kiarie Martha W. , Collince Odero O (2019) Environmental Determinants of Diarrhea Morbidity Among Children Under 5 Years in Migori County, Kenya. IJTMPH (pre-print)</p> <p>Kiarie-Makara, M. W., Nzau, A. M., Ngumbi, P. M., Waithima, A., Bowen, M. K., Nzunza, R. M., Ingonga, J. M. & Ngure, P. K. (2016) A Descriptive Survey on Knowledge, Attitude, Practices and Beliefs (KAPBs) on Kala-azar among the Residents of Marigat Sub-County, Baringo County. <i>International Journal of Tropical Medicine and Public Health</i>, 6 (2), 1-5. doi:10.5455/209302/ijtmph.</p> <p>Peter K. Ngure, Martha W. Kiarie, Anastasia M. Nzau¹, Abraham K. Waithima², Michael K. Bowen, Johnstone M. Ingonga, and Philip M. Ngumbi (2017). From Mud and Stick-Walled Houses to Corrugated Iron Sheet Houses: A New Strategy</p>

for Preventing Human-Vector Contact in Marigat Sub-County; a Leishmaniasis-Endemic Area in Kenya, *Ann Clin Cytol Pathol* 3(8): 1083.

Geoffrey K.K., Ngure N.V., Kamau L., Bet D., Lugali R.A., Ngari W. F., Mburu W. F., **Kiarie M. W.** (2017). Survey of urban mosquitoes species (Diptera: Culicidae) with focus on wastewater channels as larval habitats in Nairobi industrial area, Kenya. *African Journal of Health Science*, Volume 30, Number 2, March-April 2017

Kiarie-Makara, M.W., Dong-Kyu Lee (2016) Comparative Larvicidal and Residual Activity of Bacillus Thuringiensis var. Israelensis and Temephos (1.0 % Sg) In Granules Against *Culex Pipiens Pallens* (Diptera: Culicidae) In Semi-Field Tests IOSR Journal of Pharmacy and Biological Sciences (IOSR-JPBS) e-ISSN: 2278-3008, p-ISSN:2319-7676. Volume 11, Issue 1 Ver. I (Jan. - Feb. 2016), PP 24-32. www.iosrjournals.org. DOI: 10.9790/3008-11110118

Peter K. Ngure., Sichangi Kasili., Christopher O. Anjili., Robert M. Karanja., Josyline Kaburi., Milcah Mwangi., Geoffrey K. Kinuthia., **Martha**

W. Kiarie-Makara., Annastacia Nzau., Lucy Irungu., Philip M. Ngumbi (January 2016). Effects of *Metarhizium anasopliae* on sand fly populations in their natural habitats: a cross-sectional study in Marigat Sub-County, Baringo County, Kenya. *International Journal of Tropical Medicine and Public Health (IJMPH)*,

Kiarie-Makara, M. W., Ngumbi, P. M., Dong-Kyu Lee. (2015). Effects of Temperature on the Growth and Development of *Culex pipiens* Complex Mosquitoes (Diptera: Culicidae), *IOSR Journal of Pharmacy and Biological Sciences (IOSR-JPBS)* E-ISSN: 2278-3008, p-ISSN: 2319-7676. Volume 10, Issue 6 Ver, II PP 01-10

Kinuthia, G.K., **Kiarie- Makara, M.W.**, Gicheru, M. M., Kabiru, E.W., Dong-Kyu, L. (2011). The relationship between control of parasitic infections and poverty levels: a case study of Njoro district, Kenya. *Kosin University Journal of Health Sciences* 1: 77 - 95.

Martha Kiarie-Makara Joo-Oh KANG¹, Dong Kwan JEONG, Dong-Kyu and LEE, Hyesook KANG (2011). Field efficacy and non-target effects of temephos

granules against *Culex pipiens* (Diptera: Culicidae) and microorganisms in septic tanks in Busan, Republic of Korea. Journal of Entomological research 41(2):60-65.

Dong-Kyu, L., **Kiarie-Makara, M.W.** (2011). The effects of temperature differentials on the life cycle of the West Nile Fever Transmitting mosquito, *Culex pipiens pipiens* (Diptera: Culicidae). The Entomological Society of Korea; Entomological research 42 (2):146-154. (Korean language option)

Kiarie-Makara, M.W., Hae-Soon, Y., Dong-Kyu, L. (2010). Repellent efficacy of wood vinegar against *Culex pipiens pallens* and *Aedes togoi* (Diptera: Culicidae) under laboratory and semi-field conditions. The Entomological Society of Korea Entomological research 40 (2): 97-103.

Kiarie-Makara, M.W., Hae-Soon, Y., Dong-Kyu L. (2009). Repellent efficacy of wood vinegar from Oak tree (driftwood) against *Culex pipiens pallens* and *Ochlerotatus togoi* (Diptera: Culicidae) under laboratory conditions. Kosin Journal of Health Sciences Vol.19 Dec 2009, pp 95-106.

Kiarie-Makara, M.W., Dong-Kyu, L. (2010). Tests on the efficacy of wood vinegar from driftwood of the Korean oak to control mosquitoes using *Culex pipiens molestus* and *Aedes aegypti* (Diptera: Culicidae) under laboratory. Kosin Journal of health Sciences vol 24: pp180- 191.

Dong-Kyu, L., **Kiarie-Makara, M.W.** (2008). *Analysis of the cost effectiveness of Temephos and BTI, larvicides in the control and reduction of malaria prevalence: case study of Jeju Island in Korea.* Korean Journal of Entomology 3: 256-264. (Korean language)

Kiarie- Makara, M.W., Olumbe, K. R. (July 2011). *Effects of mentoring and inculcating Life Skills to University students: A Case Study of Daystar University, Pre-University Programme.* A paper presented at the International conference on Education at the Kenyatta University Conference Centre; 20th – 22nd July 2011, Kenyatta University, Nairobi Kenya (**Conference Paper**)

Book Publication:

Kiarie-Makara, M.W. (2013). The Dynamics of Mosquito control and Malaria disease Burden in Africa. Lambert Academic Publishers , ISBN: 978-3-659-45448 Germany, PP 297

Other publications:

Kiarie-Makara Martha W., Roseline K. Olumbe (2016). *An investigation of the Risky Behaviours University students indulges while living off-campus and its effect on their lives: a case study of Daystar University – Athi river campus* (unpublished research paper, **presented at a conference in 2016**)

Kiarie-Makara, M.W. (2007). A case study on how non-state environmental governance in Kenya has worked to protect environmental resources. A paper presented at the 2007 Amsterdam conference on the human dimensions of global environmental change; 24-26 May 2007, Amsterdam, Netherlands. **(conference Paper)**

Kiarie-Makara, M.W. (2004). The role of diversification of crops grown on irrigation schemes in Yatta irrigation schemes, Ndalani area of Machakos county, as a way of improving food production and security in the area.

Masso, D.J., **Kiarie-Makara, M.W.,** Otieno, O. (2000). The need and placement of Science graduates in the labour and mart place in East Africa with emphasis on Kenya. A research undertaken to establish the market needs for graduates with science degrees as a way of establishing the need to start science degrees at Daystar University.

Current/Ongoing Research and Consultancy:

The effect of having domestic animals; goats living close (7-10 meters) to the family house on the density of sand fly *Phlebotomus spp* captured indoor at Marigat Sub-county, Baringo County

Irrigation Practices on the Central Highlands of Kenya could enhance the spread and extension of Mosquitoes range and Highland malaria on the Kenya highlands: A Case Study of Kirinyaga County.

Investigation of Irrigation Practices in Yatta; Machakos county, Kenya: How irrigation practices on the scheme have contributed to increased prevalence and incidences of mosquito borne disease in the area.

Selected Conferences, Workshop and Seminars Attended

Research methodology Training workshop of the Eastern Africa Sub-Regional Network (EASRN) of tertiary institutions against HIV/AIDS Pandemic; Research methodology on HIV and AIDS Behavioral and Sero-prevalence studies, held at the Institute for Research and Technology of Kenyatta University, Nairobi, 14th - 15th April 2011 at the Kenyatta University Conference Centre

The First Annual International Conference on Advances in Technology and Socio-economic development (ATSED 2011), 11th – 13th May 2011 at Eldoret Sirikwa Hotel , hosted by Eldoret Polytechnic

International conference on Education, held at Kenyatta University conference Centre 20th -22nd July 2011, Kenyatta University, Nairobi, Kenya.

Research and Grants proposal writing workshop at Chiromo campus of the University of Nairobi organized by DAAD and NCST under the auspice of DAAD alumni in Kenya. Held on 22-24th August 2011

International conference Transfer of Biotechnology & Land Use Management for Sustainable Development, University College Aron, Guna, Madhya Pradesh, India, on 13 -17th February 2013

East and Central Africa Regional Conference on CREATION CARE & THE GOSPEL; 17th May to - 20st May 2015, Brackenhurst Conference Center Tigoni, Kenya, (Presented a paper on training Environmental Stewards, the role universities)

Research Governance and management Workshop; organized by The African Population and Health Research Centre (APHRC), Southern Sun Mayfair Hotel, Nairobi, August 31-September 2, 2015

The Conference of Vice-Chancellors and Deans of Science, Engineering and Technology (COVIDSET 2015) in Enugu, Nigeria from 4th – 7th October 2015; hosted by University of Nigeria, Nsukka.

Re-Aligning Academia, Government & Industry (AGI): Roadmap for the Attainment of Vision 2030; KAPU Conference Organized by the Private Universities Research Consortium of Kenya (PURCK) at Strathmore University, Madaraka Campus, Nairobi 21-22nd May 2015.

African Population and Health Research Centre (APHRC), Workshop on Successful grant Writing, 4th -6th May 2016, APHRC Lower Kabete, Nairobi Campus

The International Communication Association (ICA); **Africa Regional Conference 2016, Nairobi**, Growing Communication Scholarship: Looking to the past with gratitude, the present with passion, the future with hope. 19th - 21st October 2016, Daystar University, Nairobi Kenya (Rapporteur, Session chair and a mentee)

Narrowing the Disparity Gap among the marginalized populations in Africa, The Role of Institutions of Higher learning in closing the Disparity Gaps in health; Conference held at Jigjiga University, Ethiopia 10th -14 January 2017

Organizing Committee Member of the Daystar University Inaugural Chancellors forum under the Title: ***Separating Facts from Myths Towards Strategic Communication on Health and Nutrition Issues in Africa***, Daystar University, Nairobi Campus, DAC Auditorium; 23rd June 2017

Education Irregularities and Examination Fraud Prevention Conference" organized; Delight Professional Summits and the UNESCO Kenyan Commission. The Education Irregularities and Examination Fraud Prevention Conference" organized by Delight Professional Summits and the UNESCO Kenyan Commission, 28th -29th October 2017.

The Fourth Industrial Revolution Robotics and Artificial Intelligence (AI) and Blockchain Conference, Swift Robotics East Africa 26th October 2018, Radisson

	Blu Hotel, Nairobi. (the way forward for the training of ICT graduates for the future workplace)
8. Classes you teach:	<i>General and Medical Entomology, Ecology, Pest Ecology, Epidemiology , Neurobiology, Integrated pest management, Port Health , Immunology</i> Research methods and Biostatistics
9. Other relevant links:	Google scholar: https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=martha+w+kiarie&oq=martha+ ResearchGate: https://www.researchgate.net/profile/Martha_Kiarie-Makara Linkedin: https://www.linkedin.com/in/dr-martha-kiarie-87515038/
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