

CURRICULUM VITAE

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Current Employer

University of Nairobi, Kenya

I. Career Objective

To conduct biomedical research and gain knowledge, skills and experience especially in Malaria and Arboviral diseases and provide solutions that would contribute towards the realization of the millennium development goal of combating malaria and neglected diseases.

II. Overview

- >10 years' experience in vector ecology research in relation to malaria and arboviruses.
- 8 years' experience in teaching vector ecology and parasitology at the university.
- Authored/co-authored 15 peer-reviewed articles, thus far.
- Authored 7 opinion editorials in international newsletter 'the conversation' which were also re-published in the local newspapers; the daily nation, the business daily and the star
- Attracted small grants summing to 21,000USD.
- Has supervised one PhD and two MSc students to completion and is currently supervising 8 MSc students all supported by various organizations.
- Member of the Entomological Society of Kenya, African Association of Insect Scientists (AAIS) and Pan African Mosquito Control Association (PAMCA).
- Presented in various conferences both nationally and internationally.
- Serves in the Corruption Prevention Committee at the School of Biological Sciences, UoN and Curriculum Review Committee/ Engineering and Science Complex Committee, UoN.

III. Education

Date	Institution	Location	Speciality	Award
2011 - 2015	University of Pretoria	Pretoria, South Africa	Entomology	PhD
			Thesis title: Development of efficient tools for improved surveillance of vectors of Dengue and Chikungunya fever	
2003 – 2006	The University of Nairobi	Nairobi, Kenya	Medical Entomology	MSc
			Thesis title: Sampling African malaria vectors using Limburger cheese and milk cream as odor baits	
1997 – 2001	The University of Nairobi	Nairobi, Kenya	Zoology major	BSc
1992 – 1995	Pangani girls School	Nairobi, Kenya	"O" Levels	KCSE

1986 – 1991	Mahiga Primary School	Nairobi, Kenya	Primary levels	KCPE
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IV. Scholarships /Grants

Awarding body	Title of project	Amounts awarded	Support start date	Support end date
Deutscher Akademischer Austausch Dienst (DAAD)	A scholarship to pursue a Master of Science degree in Medical Entomology under the Staff movement advice programme of the University of Nairobi	15,000 USD	September 2003	August 2006
National Commission for Science Technology and Innovation (NACOSTI)	Evaluation of Limburger cheese and African traditional milk cream in combination with lactic acid, carbon dioxide and ammonia in sampling African malaria vectors	1,200,000 KES	January 2010	December 2013
International foundation for science (IFS)	Isolation of volatiles in Limburger Cheese and traditional milk cream and their evaluation as potential malarial vector attractants'	9,100USD	August 2010	July 2013
African Regional Postgraduate Programme in Insect Sciences	Development of efficient monitoring tools for improved surveillance of vectors of Dengue and Chikungunya fever	147,900 USD	September 2011	December 2014

V. Courses presently teaching

1	SZL 310	Introduction to Parasitology
2	SZL 101	Invertebrate Zoology
3	SZL 520	Arthropod Behaviour & Ecology
4	SZL 404	Basic Entomology

VI. Books published

1. Advances in Parasitology: Helminthology

Amazon.com: https://www.amazon.com/dp/8194888824/ref=tmm_pap_swatch_o?encoding=UTF8&qid=1605260612&sr=1-1

Amazon Kindle: https://www.amazon.com/Advances-Parasitology-Eunice-Anyango-Owino-ebook/dp/Bo8MQNWRRR/ref=tmm_kin_swatch_o?encoding=UTF8&qid=1605260612&sr=1-1

2. Trends in Parasitology: Protozoology

Amazon: <https://www.amazon.com/dp/Bo86PGLJ8W>

And

Kobo: <https://www.kobo.com/.../trends-in-parasitology-protozoology>

VII. List of publications in peer reviewed journals

1. Garba LC, Oyieke FA, **Owino EA**, Mwansat GS, Chintem DGW. Molecular characterization and species composition of anopheline vectors of malaria along an altitudinal gradient on the highlands of Mambilla Plateau Northeast, Nigeria. *Afr J Biol Sci.* 2020; 2 (1), 18-27.
2. Kariuki PK, Toroitich F, Ongamo G, Nduko JM, **Owino EA**, Kingori A. Diversity and Abundance of Grasshopper and Locust Species in Nakuru County, Kenya. *Asian J Conserv Biol.* 2019; 8(2,): 102-109
3. Omondi WP, **Owino EA**, Odongo D, Mwangangi JM, Torto B, Tchouassi DP. Differential response to plant- and human-derived odorants in field surveillance of the dengue vector, *Aedes aegypti*. *Acta Trop.* 2019; 5;200:105163
4. **Owino EA**. Kenya needs cohesive policies and better strategies in its war against malaria in arid and semi-arid areas. *Int J Mosq Res.* 2018; 5(5):124-126.
5. **Owino EA**. Enhanced surveillance and cohesive policies needed to tackle Rift Valley fever. *Asian Pac J Trop Med.* 2018; 11:547-8
6. **Owino EA**. *Aedes* spp mosquitoes and emerging neglected diseases of Kenya. *Int J Mosq Res.* 2018; 5(5):01-11.
7. Garba LC, Oyieke F A, **Owino EA**, Mwansat Houmsou RS, Dada F, Chintem DGW, Waa BE. Larval habitats of anopheline vectors of malaria on the highlands of Mambilla Plateau Taraba State North east Nigeria. *Int J Mosq Res.* 2018; 5(1): 96-100
8. Garba LC, Oyieke F A, **Owino EA**, Mwansat Houmsou RS, Darda F, Chintem DGW, Species Diversity and Relative Abundance of anopheline vectors of malaria on the highlands of mambilla plateau, North east Nigeria. *J Biotechnol Bioeng.* 2018; 1(1): 37-42
9. **Owino EA**, Sang R, Sole CL, Pirk C, Mbogo C, Torto B. An improved odor bait for monitoring populations of *Aedes aegypti*-vectors of dengue and chikungunya viruses in Kenya. *Parasit Vectors.* 2015; 8:253.
10. **Owino EA**, Sang R, Sole CL, Pirk C, Mbogo C, Torto B. Field evaluation of natural human odours and the biogent-synthetic lure in trapping *Aedes aegypti*, vector of dengue and chikungunya viruses in Kenya. *Parasit Vectors.* 2014; 7:451. 451.
11. Hiron M, Rubene D, Mweresa CK, Ajamma YUO, **Owino EA**, Low M Crop damage by granivorous birds despite protection efforts by human bird scarers in a sorghum field in western Kenya. *Ostrich.* 2014;85 (2): 153-159
12. Kweka EJ, **Owino EA**, Lee M, Dixit A, Himeidan YE, Mahande AN. Efficacy of resting boxes baited with carbon dioxide versus CDC light trap for sampling mosquito vectors: A comparative study. *Glob Hlth Persp.* 2013; 1(1):11-18.
13. Kweka EJ, **Owino EA**, Mwang'onde BJ, Mahande AM, Nyindo M, Mosha F. The role of cow urine in the oviposition site preference of culicine and Anopheles mosquitoes. *Parasit Vectors.* 2011; 4:184.

14. **Owino EA.** Sampling of *An.gambiae* s.s mosquitoes using Limburger cheese, heat and moisture as baits in a homemade trap. *BMC Res Notes.* 2011; 4:284.

Other publications in peer reviewed journal

1. H Matthew, D Rubene, CK Mweresa, YUO Ajamma, **EA Owino**, L Matthew. Crop damage by granivorous birds despite protection efforts by human bird scarers in a sorghum field in western Kenya. *Ostrich; Journal of African Ornithology* 2014 June; 85(2): 153-159.

VIII. List of publications (opinion editorials) in newsletters

1. **Eunice A Owino.** Lockdown and flooding raise the risk of a spike in mosquito-borne diseases in Kenya. The conversation 2020-26-05 | newsletter-article <https://theconversation.com/lockdown-and-flooding-raise-the-risk-of-a-spike-in-mosquito-borne-diseases-in-kenya-139129>
2. **Eunice A Owino.** Heavy rains put Kenya at risk of mosquito-borne diseases. The Conversation 2020-22-01 | newsletter-article. <https://theconversation.com/heavy-rains-put-kenya-at-risk-of-mosquito-borne-diseases-130076>
[https://nairobi.news.nation.co.ke/blog/heavy-rains-put-kenya-at-risk-of-mosquito-borne-diseases.](https://nairobi.news.nation.co.ke/blog/heavy-rains-put-kenya-at-risk-of-mosquito-borne-diseases)
3. **Eunice A Owino.** Ethiopia must do more to stop recurring chikungunya outbreaks. The Conversation 2019-16-09 | newsletter-article <https://theconversation.com/ethiopia-must-do-more-to-stop-recurring-chikungunya-outbreaks-123403>
4. **Eunice A. Owino.** Kenya must wake up to the threat of an outbreak of Rift Valley fever. The Conversation. 2018-06-03 | newsletter-article. <http://theconversation.com/kenya-must-wake-up-to-the-threat-of-an-outbreak-of-rift-valley-fever-97364>.
https://www.the-star.co.ke/news/2018/06/04/kenya-must-wake-up-to-threat-of-rift-valley-fever-outbreak_c1768062.
<https://www.businessdailyafrica.com/corporate/health/Kenya-must-wake-up-to-the-threat-of-Rift-Valley-Fever/4258458-4596300-tg7otiz/index.html>.
5. **Eunice A. Owino.** Why Kenya isn't winning the war against malaria in some counties. The Conversation. 2018-04-22 | newsletter-article. <https://theconversation.com/why-kenya-isnt-winning-the-war-against-malaria-in-some-counties-95101>.
https://www.the-star.co.ke/news/2018/04/23/why-kenya-isnt-winning-the-war-against-malaria-in-some-counties_c1747928.
<https://www.businessdailyafrica.com/corporate/health/Why-Kenya-isn-t-winning-the-war-against-malaria/4258458-4494238-ca6x7az/index.html>.
<https://www.nation.co.ke/health/What-counties-can-do-to-curtaile-malaria-outbreaks/3476990-4495040-gv9maw/index.html>.
6. **Eunice A. Owino.** Why Kenya needs policies to tackle dengue and chikungunya viruses. The Conversation. 2018-04-18 | newsletter-article. <https://theconversation.com/why-kenya-needs-policies-to-tackle-dengue-and-chikungunya-viruses-91420>.

https://www.the-star.co.ke/news/2018/04/12/why-kenya-needs-policies-to-tackle-dengue-chikungunya-viruses_c1743001.

7. **Eunice A Owino.** How we pinned down what attracts mosquitoes that carry dengue fever. The Conversation 2018-02-25 | newsletter-article.
<https://theconversation.com/how-we-pinned-down-what-attracts-mosquitos-that-carry-dengue-fever-91419>.
https://www.the-star.co.ke/news/2018/02/25/how-we-pinned-down-what-attracts-mosquitos-that-carry-dengue-fever_c1720576

IX. Employment History

<u>Date</u>	<u>Institution</u>	<u>Position</u>	<u>Activities</u>
2016 -current	School of Biological Sciences University of Nairobi Nairobi, Kenya	Lecturer	Supervision of MSc and PhD students in Entomology and Parasitology. Teaching zoology course units in Invertebrate zoology, Entomology and Parasitology
2011-2016	School of Biological Sciences University of Nairobi	Tutorial fellow	Taught zoology course units in Invertebrate Zoology and Epidemiology
2011-2015	International Centre of Insect Physiology and Ecology (ICIPE), Kasarani, Nairobi, Kenya	PhD research fellow	Worked on a thesis Entitled Development of efficient tools for improved surveillance of vectors of dengue and chikungunya fever
2008-2011		Demonstrator	Worked as a laboratory and field assistant in Zoology course units: Vertebrate zoology, Cell biology, Animal Physiology and Epidemiology
2001-2011	NAM PHARMACY	Pharmacy director	Coordinated the day to day running of the pharmacy; Supervised employees

X. Trainings

12th-18th Nov 2020: Attended an Online Training in Microsoft Teams, University of Nairobi, Nairobi, Kenya.

12th June 2020: Attended an Online Examinations Support Training, University of Nairobi, Nairobi, Kenya.

28th May 2020: Attended an online training on E class for examination administration, University of Nairobi, Nairobi, Kenya.

21st May 2020: Attended an online training on Rubrics Marking Module, University of Nairobi, and Nairobi, Kenya.

20th May 2020: Attended an online training on Zotero Referencing Tool, University of Nairobi, Nairobi, Kenya.

19th May 2020: Attended an online training on Turnitin Similarity Check System, University of Nairobi, Nairobi, Kenya.

15th May 2020: Attended an online training on online examination platform - Moodle (e-class), University of Nairobi, Nairobi, Kenya.

14th May 2020: Attended Training on Google Suite for Exams Administration, University of Nairobi, Nairobi, Kenya.

11th May 2020: Attended an online training on examination platform, University of Nairobi, Nairobi, Kenya.

30th Jan- 1st February 2018: Participated in the science communication training, Gecaga Institute, School of Biological Sciences, University of Nairobi, Nairobi, Kenya.

23rd -24th November 2017: Participated in the CARTA PhD supervision workshop, Gracia gardens, Nairobi, Kenya.

19th – 21st November 2014: Participated in the course on Mapping and Modelling Ecosystem Services using Invest Models, ICIPE, Nairobi, Kenya.

1st – 15th June 2014: Participated in the Insect Chemical Ecology course, Penn. State University, state college, Pennsylvania, and USA.

19th – 21st March 2014: Participated in the training on Economic Valuation of Ecosystem Services and Goods, ICIPE, Nairobi Kenya.

13th – 18th November 2012: Participated in the good clinical and laboratory seminar practice sponsored by the International Centre of Insect Physiology and Ecology, icipe, Nairobi, Kenya.

26th – 28th November 2012; Participated in a workshop on early Warnings and Predictive Time Series Modelling sponsored by Umeå University-Sweden and the International Centre of insect Physiology and Ecology (icipe), Nairobi, Kenya.

13th – 15th November 2011: Participated in the Insect chemical ecology and multilevel pest management towards food security and sustainable development workshop sponsored by the International Centre of Insect Physiology and Ecology and the Swedish University of Agricultural Sciences, icipe, Nairobi, Kenya.

22nd – 24th November 2011: Participated in the good scientific communication seminar sponsored by the International Center of Insect Physiology and ecology, icipe, Nairobi, Kenya.

25th – 26th October 2010: Participated in the Open Access Africa Programme training sponsored by Biomed Central at Kenyatta University, Kenya.

1st – 12th August 2010: Participated in the advanced research methodology workshop sponsored by the University of Nairobi's Centre for HIV prevention and research, University of Washington (USA) and the National Institutes of Health (USA), University of Nairobi, Nairobi, Kenya.

22nd – 27th September, 2008: Participated in the proposal writing seminar, sponsored by the International Foundation for Science (IFS) and the University of Nairobi, Nairobi, Kenya.

XI. Conferences

Owino EA , Sang R, Sole CL, Pirk C, Mbogo C and Torto B. Violet baited light emitting diode (LED) trap improves sampling of *Aedes aegypti*-vector of dengue and chikungunya virus. Presentation; 5th Symposium of the Medical and Veterinary Virus Research (MVVR). December 7-8th, 2017. BOMA hotel, Nairobi, Kenya.

Owino EA , Sang R, Sole CL, Pirk C, Mbogo C and Torto B. Violet baited light emitting diode (LED) trap improves sampling of *Aedes aegypti*-vector of dengue and chikungunya virus. Presentation; 22nd conference of the African Association of Insect Scientists, Oct 22-27, 2017. Wad-Madani, Sudan.

Owino EA, Sang R, Sole CL, Pirk C, Mbogo C and Torto B .An Improved Odor Bait for Sampling Vectors of dengue and chikungunya viruses in Kenya
Presentation: 4th Symposium of the Medical and Veterinary Virus Research (MVVR). October 15 -17th 2015. Hilton hotel, Nairobi, Kenya.

Owino EA, Sang R, Sole CL, Pirk C, Mbogo C and Torto B. Evaluation of natural human odors and Biogents mosquito lure in trapping *Aedes aegypti*, vector of dengue and chikungunya viruses in Kenya.
Presentation: 1st Pan African Mosquito control association (PAMCA) Annual Conference. October 6-8th 2014, Panari hotel, Nairobi, Kenya.

Owino EA, Sang R, Sole CL, Pirk C, Mbogo C and Torto B. Evaluation of natural human odors and Biogents mosquito lure in trapping *Aedes aegypti*, vector of dengue and chikungunya viruses in Kenya
Presentation: 3rd Symposium of the Medical and Veterinary Virus Research (MVVR). October 16 -17, 2015. Hilton hotel, Nairobi, Kenya.

Owino EA, Sang R, Sole CL, Pirk C, Mbogo C and Torto B. Trapping of mosquitoes using light emitting diode (LED), CDC traps in dengue and chikungunya fever hot spots in Kenya.
Presentation: 20th Conference of the African Association of Insect Scientists. October 2013, University of Yaoundé, Yaoundé Cameroon.

XII. Students Supervised and Graduated

- 1 Wycliffe Peter Omondi, MSc-Evaluation of a vector surveillance strategy for control and prevention of Dengue and Chikungunya in Busia and Kilifi counties, Kenya - Graduated, University of Nairobi -2020.
- 2 Liatu Garba, PhD -Malaria transmission along an altitudinal transect on the highlands of Mambila Plateau, Nigeria- Graduated, University of Nairobi-2019.
- 3 Truphena Wanja, MSc - Efficacy of Syptertix on tsetse fly control (*Glossina pallidipes*) in Kiboko Makueni county-Kenya - Graduated, University of Nairobi-2018.

XIII. Students Currently Under Supervision

- 1 Peter Kariuki Kairu, MSc- Grasshoppers and Locusts Species Diversity and Distribution in Nakuru County, Kenya-Ongoing, University of Nairobi.
- 2 Brenda Musimbi, MSc-Determination of plant feeding and plant metabolite effect from *Pithecellobium dulce* on arboviral vector competence of *Aedes aegypti*-Ongoing, University of Nairobi.
- 3 Epaphrus Yuko Okoth, MSc-Assessment of vector competence of *Phlebotomus duboscqi* in transmitting a novel sandfly associated antibody-neutralising phlebovirus-Ongoing, University of Nairobi.
- 4 Sela Tengo, MSc-Susceptibility of *Anopheles gambiae* Mosquitoes to a Novel Group of Thioureas Insecticides- Ongoing, University of Nairobi.
- 5 Robinson Okiro Kisero, MSc - Role of *Aedes chaussieri* in sylvatic arboviral transmission- Ongoing, University of Nairobi.
- 6 Fiona Kinya, MSc - Assessment of plant feeding behavior in the malaria vector, *Anopheles funestus*- Ongoing, University of Nairobi.
- 7 Augustine Ndunga Musembi, MSc- Infection profile of tick-borne bacterial pathogens in selected semi-arid ecologies of Kenya- Ongoing, University of Nairobi.
- 8 John Charo Safari, MSc – Investigation of genetic diversity and vector competency of *Aedes aegypti* population in Nakuru and Uasin Gishu Counties for Zika and chikungunya viruses – Ongoing, University of Nairobi

XIV. Students Internally Examined

- 1 Willis Ndeda Ochilo's PhD thesis titled 'Binomial sampling plan of spider mite complex and ecological limits of major arthropod pests of tomato (*Lycopersicon esculentum* Mill) in Kenya'-2019.

- 2 Ms. Sifuna Millicent's MSc thesis titled 'Anopheles Productivity of Aquatic Habitats created Through Artisanal Capture Fishing on Mageta Island in Western Kenya'-2019.
- 3 Ms. Amadi Jacinter Aluoch's PhD thesis titled 'Effects of climate variability on ecohydrological conditions and their influence on malaria risk in Baringo County Kenya-2018.
- 4 Ms. Isaiah Phyllis Munyiva's MSc thesis titled 'Survey of tick species and their abundance at Kapiti plains Estate, Makueni County in Kenya'-2017

XV. Administrative responsibilities

Head: Insect Science

Spear head operations of the Insect Science thematic area

In consultations with the director of the school, allocate duties to staff in this area.

Chair meetings.

Committees Serving In

Corruption Prevention Committee – SBS

Spearhead corruption activities in the school

Handle corruption cases in the School using guidelines provided by the administration of justice and commission

Carry out required investigations on corruption and conflict of interest cases reported within the school.

Prepare monthly and quarterly reports on corruption prevention and conflict of interest matters

Hold monthly meetings to open corruption boxes and report on the same

Sensitize on corruption prevention laws and policies.

Curriculum Development Committee – SBS

Ensure quality development for programmes that meets the general education requirements and implementation.

Ensure that the school has an adequate number of academically and professionally qualified staff to administer and manage the programs.

Evaluation of course of a given program.

Regularly review the content of a given program.

Provide distinct course codes to the various courses in a given program.

Clearly articulate the degree classification system of a university program.

Curriculum Review Committee (Science and Engineering Complex) - CBPS

Main role is to develop a new curriculum to train and equip science and engineering students with knowledge and high quality skills to meet current market demands and drive the Country to become a highly industrialized and developed Country. The program is proposed to be highly practical (in the proposed state of the art laboratories) to prepare the students well for the working world, and have the skills to adapt to changes throughout their career.

XVI. References

Prof. Baldwyn Torto

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