

DR. MARK OTIENO

Name: Dr. Mark Otieno

Title/Qualification: PhD

Positions: Dean of Students and Lecturer

Department: Agricultural Resource Management

School: Agriculture

Area of Specialization: Entomology, Range Management,
Animal Ecology and Biodiversity Conservation

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Short Biography

Dr. Mark Otieno is a dedicated scholar and conservationist with a passion for insect mediated ecosystem services research within agro-ecosystems.

Currently, Dr. Otieno is the Dean of Students of University of Embu. He is also a lecturer in the Department of Agricultural Resource Management.

Before joining University of Embu, he undertook postdoctoral research on integrated Crop Pollination at Pennsylvania State University, USA. Prior to that, he worked as a Specialist Training Workshop Coordinator for the Tropical Biology Association running workshops on communicating scientific results, scientific publishing, effective teaching strategies and designing environmental research projects in the field across many countries in Africa and Madagascar.

Dr. Otieno completed his PhD at the University of Reading, UK under a Felix Scholarship. Having studied Animal Ecology at Kenyatta University, Kenya and writing his MSc thesis on Acacia pollination funded by the Tropical Biology Association, he gained experience in a wide range conservation projects, notably an EU/USAID project promoting wildlife conservation through ecotourism in Kenya as well as pollination research.

His PhD work on pigeon pea systems in Kenya has led to the establishment of key farm management practices that can be used to promote sustainable delivery of pollination services and increase yields.

Dr. Otieno has received numerous awards, prizes and mentions at important professional and global meetings and has published in high impact peer reviewed science journals.

Research Interests:

- Sustainable delivery of pollination and other insect mediated ecosystem services
- bee biology with a focus on ecology
- community structure and functioning
- landscape change and beneficial insect conservation management.

Publications in Journals:

1. Lichtenberg E., Otieno, M., et al. (2017) A global synthesis of the effects of diversified farming systems on arthropod diversity within fields and across agricultural landscapes. *Global Change Biology*: DOI: 10.1111/gcb.13714.
2. Joshi, N.K., Otieno, M., Rajotte, E.G., Fleischer, S.J. and Biddinger D.J. (2016) Proximity to Woodland and Landscape Structure Drives Pollinator Visitation in Apple Orchard Ecosystem. *Frontiers of Ecology and Evolution*. DOI: dx.doi.org/10.3389/fevo.2016.00038
3. Stanley, D. Otieno, M., Steijven, K., Piironen, T., Willmer, P. and Nuttman, C. (2016) Pollination ecology of *Desmodium setigerum* (Fabaceae) in Uganda; Do big bees do it better? *Journal of Pollination Ecology*. Vol. 18.
4. Otieno M., Sheena C.S., Woodcock, B.A., Wilby, A., Vogiatzakis, I.N., Mauchline, A.L., Gikungu, M.W. and Potts S.G. (2015). Local and landscape effects on bee functional guilds in pigeon pea crops in Kenya. *Journal of insect Conservation*. 19(4); 647-658. DOI: 10.1007/s10841-015-9788-z.
5. Garibaldi, L.A., Otieno, M. et al. (2015) Trait matching of flower visitors and crops predicts fruit set better than trait diversity. *Journal of Applied Ecology*. 52 (6); 1436-1444. DOI: 10.1111/1365-2664.12530.
6. Joshi N. K., Leslie, T., Rajotte, E.G., Kammerer, M.A., Otieno M. and Biddinger, B.J. (2015). Comparative Trapping Efficiency to Characterize Bee Abundance, Diversity, and Community Composition in Apple Orchards. *Annals of the Entomological Society of America*. 108(5):785-799. DOI: 10.1093/aesa/sav057.
7. Garibaldi, L.A., Otieno, M. et al. (2013) Wild insects enhance global crop pollination even when honey bees are abundant. *Science*: (339); 1608-1611.

8. Kennedy, C., Otieno, M. et al. (2013). A global quantitative synthesis of local and landscape effects on native bee pollinators across heterogeneous agricultural systems. *Ecology Letters*: (16); 584-599.
9. Norfolk, O., Sadiki, L., Broughton, B., Otieno, M. and Nuttman, C. (2013) Tea breaks: how flower-visitors can benefit from un-planned floral buffer-strips in a Tanzanian tea plantation. *African Journal of Ecology*. Vol 51: p 380–384.
10. Otieno, M., Woodcock, B.A., Wilby, A., Vogiatzakis, N.G., Mauchline, A.L., Gikungu, M and Potts, S.G. (2011) Local management and landscape drivers of pollination and biological control services in a Kenyan agro-ecosystem. *Biological Conservation*. 144 (10): 2424-2431.
11. Nuttman, C.V., Otieno, M., Kwapong, P.K., Combey, R., Willmer, P.G. and Potts, S.G. (2011) Aerial pan-trapping: a method for assessing insect pollinators in tree canopies. *Kansas Journal of Insect Science*. 84 (4): 260 - 270.
12. Otieno, M. and Reed, T. (2001) Pollination and pollinator attraction in *Hypoestes triflora* (Forssk.) Roem. and Schult.: Acanthaceae. *TBA Journal of Reports*.101-114.

Presentation of Papers at Academic and Professional Conferences

1. Otieno, M., Biddinger, D. J., Fleischer, S. J., Joshi N. K., and Rajotte, E. (2013). The uniqueness of Pennsylvania landscape in determining the community composition of

native bees delivering pollination services to apples. 61st ESA Annual Meeting, Nov. 10-13, Austin, TX, USA.

2. Otieno, M., Woodcock, B.A., Wilby, A., Vogiatzakis, N.G., Mauchline, A.L., Gikungu, M and Potts, S.G. (2013) Local management and landscape structure drive pollinator community and crop pollination in East Africa, International Conference on Pollinator Biology, Health and Policy August 14-17, 2013, Nittany Lion Inn, University Park, PA, USA.
3. Otieno, M., Woodcock, B.A., Wilby, A., Mauchline, A.L. and Potts, S.G. (2010) Spillover of ecosystem services from field boundaries: pollination and pest regulation in field bean crops. A Paper presented at the 1st Pollinator Biology, Health and Policy Conference in State College, PA. USA.
4. Otieno, M., Woodcock, B.A., Wilby, A., Vogiatzakis, N.G., Mauchline, A.L., Gikungu, M and Potts, S.G. (2009) Linking landscape context and local habitat management to insect pollination and pest control in pigeon pea. A Paper presented at the 10th INTECOL Conference in Brisbane Australia

Website links

<https://scholar.google.com/citations?user=hDbxZ4cAAAAJ&hl=en>

<http://www.tropical-biology.org/information/tba%20achievers.htm>

https://www.linkedin.com/profile/view?id=66970567&trk=nav_responsive_tab_profile