

CURRICULUM VITAE

Name: Dr. Rossa Ng'endo Nyoike.
Year of birth: 1979.
Marital status: Married.
Nationality: Kenyan
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Personal Profile Statement

A motivated, hardworking, adaptable and responsible lecturer seeking a position in zoology/ecology related aspects which will utilise the professional and technical skills developed through past work experiences in this field. I have a methodical, student/partnership-focused approach to work and a strong drive to see things through to completion.

EDUCATION QUALIFICATIONS:

2014 Feb –April 2014 Certificate in applied Computer Science at IBM in collaboration with The Catholic University of Eastern Africa.

Courses content

- Fundamentals of Computer Science; Cloud Computing
- Computing in the Enterprise: BPM, ERP, Web Services, API; IT Services Management
- Human Computer Interaction: System Design, Social Computing; Mobile, Analytics
- Cognitive Computing
- Big Data (Application to Africa's grand challenges): Energy, Water, Health and Education

2008 - July 2011 PhD at Phillips Universität Marburg, Department of Animal Ecology.

Research topic Phylogenetic Community Structure of Ants in Secondary Tropical Forests in Brazil.

- involved biodiversity survey through identification of species using morphological and molecular characters (DNA sequencing), assessment of species composition in terms of phylogenetic/beta diversity and community assembly patterns in ecological habitats at different gradients in Brazil forest.

- Awarded a Doctoral Degree in Natural Sciences (Dr. rer. Nat.)

2004-2008 Masters of Science in Animal Ecology at Kenyatta University.

Course work Experimental Design & Statistics, Population Ecology
Community Ecology, Ecological Techniques
Evolutionary Ecology, The Physical Environment
Wildlife Behaviour & Management, Ecology & Human Macrosphere
Thesis topic The Morphology, Bioacoustics and Tadpole Biology of the Frog
Genus *Ptychadena* in Taita Hills, Kenya.

-involved using 3 taxonomic tools to assess the biodiversity of the Genus *Ptychadena* in Taita hills, and compare the findings from those in other regions for the same genus.

- Awarded a degree in Master of Science; Animal Ecology

1999-2003 Bachelors of Education Science at Kenyatta University, majoring in Zoology and Botany.

Relevant Subjects General Zoology; Introduction to Ecology and Bioanalysis
Vertebrate and Invertebrate Zoology, Genetics,
Evolutionary Biology, Urban Ecology
Ecology for Sustainable Development and
Tropical Biodiversity, Biostatistics

- Awarded a degree in Bachelors of Education (Science) 2nd Class Honors (Upper Division).

1994-1997 High School Education at Don Bosco Girls Secondary.

- Mean Grade B+ (plus) in Kenya Certificate of Secondary Education (KCSE).

WORK EXPERIENCE:

2012 July-to date Full-time lecturer at The Catholic University of Eastern Africa (CUEA)

Main courses taught

Introduction to Ecology & Bioanalysis, Conservation Biology,
General Genetics, Vertebrate biology,
Principles of Biostatistics & Data analysis
Plant-Animal interactions, Mammalogy & ornithology

Other courses taught

Environmental Science, Advanced animal physiology
Comparative animal physiology, Animal anatomy & physiology

Other responsibilities

- Supervision of undergraduate/postgraduate students in research projects
- Patron Natural science club
- University representative in CUEA affiliate college: Uzima university college).
- Faculty representative in the University chaplaincy

- **Part-time lecturer at Jomo Kenyatta University of Agriculture and Technology.**

Courses taught

- Biotechnology and conservation biology
- Comparative entomology (MSc.)

- Supervision of MSc. Students in research projects.

2011- July 2012 Researcher on diversity of amphibians in rehabilitated quarry mines in the Lafarge ecosystems, Bamburi (Kenya).

2008 - July 2011 Research scientist/PhD student at Phillips Universität Marburg.

Other Responsibilities

- Teaching introductory skills on DNA work in the Laboratory to students.
- Assisting bachelor students in data analysis and presentation preparations in seminars.

2006-2007 Voluntary attachment at the National Museums of Kenya (NMK) Department of Herpetology.

Responsibilities

- Organizing for fieldwork excursions.
- Reptiles and amphibian biodiversity surveys.
- Specimen grouping, labeling and preservation.
- Morphometric and morphological data taking and entry into the Database.

2003-2004 High school teacher Don Bosco Girls.
Taught Biology and Chemistry Forms 1 to 4.

Responsibility Head of the Science Club; organizing laboratory practices.

2002-2003 Voluntary work as Treasurer for Kenyatta University Catholic Community

PUBLICATIONS /CONFERENCES PAPERS

1. Penninah K. Maugo, **Rossa N. Ng'endo**, Patrick K. Malonza & Zipporah O. Lagat (2014). Conference paper on „**Effects of habitat characteristics on recovery and distribution of Tree frogs (Hyperolidae) in rehabilitated quarries of bamburi-**

mombasa. Proceedings of the 4th National Museums of Kenya Biennial Science Conference.

2. Dominic O. Ong'oa, **Rossa N. Ng'endo**, Shadrack M. Muya, Mathew M. Nyoike, Patrick K. Malonza, Zipporah L. Osiemo, (2013). "**Diversity and Abundance Patterns of Amphibians in Rehabilitated Quarries of Bamburi Near Mombasa (Kenya)**," Transylv. Rev. Syst. Ecol. Res. 15.1 (2013). "The Wetlands Diversity" DOI: 10.2478/trser-2013-0006.
3. **Ng'endo RN**, Osiemo ZB, Brandl R. (2013). **DNA barcodes for species identification in the hyperdiverse ant genus Pheidole (Formicidae: Myrmicinae).** Journal of Insect Science 13:27.
4. Osiemo Zipporah, Muya Shadrack, **Ng'endo Rossa**, Gitonga Linus, and Baya Joseph, Sithanatham Srinivasan. (2012), "**Evaluation of biological attributes of a native egg parasitoid, Trichogrammatoidea sp. nr. lutea (girault), kenyan accessions.**" Asian Journal of Pharmaceutical and Biological Research (2): 172-176.
5. **Ng'endo, R.**, Kairu, E., Osiemo, Z.B. & Ogol, C.P.K. (2011). **Morphological variation of Ridged Frogs of the Taita Hills, Kenya.** *Acta Herpetologica* Journal; issue 6(2): 275-288.
6. **Ng'endo, R.**, Bihn, J.H. & Brandl, R. (2010). Presented a poster on "**DNA barcoding as a method for species identification in the hyper-diverse ant genus Pheidole**". – in Verhandlungen der gesellschaft für Ökologie (GfÖ), Band 40. Proceedings of 40th Anniversary Conference in Giessen held on 30th August - 3rd September 2010.
7. **Ng'endo, R.** (2006). Presented a Poster on "**The Morphology, Bioacoustics and Tadpole Biology of the Frog Genus Ptychadena in Taita Hills, Kenya**". Proceedings of National Museums of Kenya Annual Conference.-in Kenya Institute of Education (K.I.E.) held on 15th - 17th November 2006.

CONFERENCES/ WORKSHOPS ATTENDED

- 16th – 17th October 2015: Participated in the 6th Interdisciplinary Scientific Conference on theme: Refocusing the Role of Science, Technology and Innovation in Education for sustainable development in the 21st Century“ held at the Catholic university of Eastern Africa.
- 6th-8th March 2014: Humboldt Colloquium. „The Power of excellence in Science – Enhancing Academic capacities in Africa“ held at Safari Park Hotel, Nairobi Kenya.
- 6th - 8th November 2013: 4th NMK Science Conference. Theme: „ Museum Reseach and climate“ held at Louis Leakey Auditorium, National Museums of Kenya, Nairobi.

- 29th -2nd May 2013: Implementers training for ISO 9001:2008 standard requirements for the quality management system of the Catholic University of Eastern Africa at Kolping organization of Kenya.
- 8th-10th August 2006: National postgraduate Seminar on “Use of Scientific Research in Poverty eradication” at Kenyatta University.
- 14th- 21st September 2005: Workshop on **GIS** Beginners Course at National Museums of Kenya.

UNDERGRADUATE AND MSC. STUDENTS RESEACH PROJECTS SUPERVISION

1. Clarah Jepkorir Kimtai (MA in Geography, 2017). Topic: **An assessment of water shortages and coping mechanisms at household level in the informal settlements of Eldoret municipality, Uasin Gishu County.**
2. Dominic Otworu Ongoa (Msc. 2011; Jomo Kenyatta University of Agriculture & Technology) Topic: **Diversity of the amphibians in rehabilitated quarry habitats in Bamburi Kenya** (ongoing).
3. Penninah Maugo (Msc. 2011; Jomo Kenyatta University of Agriculture & Technology) Topic: **Ecological characteristics of tree frogs in rehabilitated quarry habitats in Bamburi Kenya** (ongoing).
4. Njuguna Mercy (BSc. 2013); Catholic University of Eastern Africa). Research Topic: **The diversity of butterfly species in CUEA main Campus.**
5. Momanyi Bogonko Peter (Bsc. 2013; Catholic University of Eastern Africa). Research Topic: **A comparative biodiversity survey of avian species in Ongata Rongai - Kajiado County, Kenya.**

RESEARCH INTERESTS:

- Biodiversity survey/ taxonomy.
- Bioanalysis of ecological community patterns.
- Collaborative Management and Conservation of Biodiversity.
- Participatory methodologies in research, local knowledge, and natural resource utilization.

SKILLS AND ACHIEVEMENTS:

- **Language skills:** Fluent in English and Kiswahili; can speak a little German language.
- **Laboratory skills:** DNA extraction methods, PCR protocol, Gel staining and UV photo taking.

- **Computer literacy:** conversant with most Microsoft packages
- Sequence data alignment and analysis.

- Conversant with data analysis programs: Cool edit Syntrillium, Statistica, SPSS, Bioedit, MEGA, PAUP, Mrbayes, Project R packages: ape, stats, lattice, vegan, picante, FD, cluster, adehabitat, gplots, gclus, Mass.

- Ability to organize field excursion with student/team members