

# Curriculum Vitae

Prof. Shadrack M. Muya, PhD, EMOD



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## Background

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| <b>Personal Details</b> | Date of birth: - 3rd March 1968   |
|                         | Marital status: - Married   |
|                         | Profession: - Conservation Biologist  |
|                         | Languages: - English, Swahili and others  |
|                         | Home County: - Machakos   |
| <b>Address</b>          | Department of Zoology<br>School of Biological Sciences<br>Jomo Kenyatta University of Agriculture and Technology<br>Box 62000 – 00200, Nairobi<br>Tel. 0721804614 (mobile), Email : smuya@jkuat.ac.ke or smuvui@gmail.com |

**Area of Specialization:** Conservation Biology/Molecular Ecology

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## Education

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- 2014 - August – 2015 August: Executive Master of Science in Organization Development – USIU Africa
- 2005 - March – 2009 July: - Doctor Philosophy Degree in Zoology (Molecular Ecology) of Jomo Kenyatta University of Agriculture and Technology
- 2000 - Postgraduate Diploma in Marketing Management, Kenya Institute of Management.
- 1993 - September – 1996 April: -Master of Philosophy Degree in Wildlife Management (Ecology and Conservation) of Moi University
- 1989 - September - 1993 April: -Bachelor of Science Degree in Wildlife Management, 2nd Class Honors, Upper Div. Moi University.
- 1988 - KACE (Biology, Chemistry, and Mathematics). 11 Points, Machakos School
- 1985 - Ordinary level certificate of education Division 1, Tala High School
- 1982 - Kenya Certificate of Primary Education. Passed with 34 points out of the possible 36 points

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## Other training

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- 2012 - January – February; attended a 50 days training on Wildlife DNA forensics at veterinary Genetics Laboratory, University of Pretoria, South Africa

2010 - Attended a 13 days course on “Recent advances in conservation genetics”, at the white oak conservation center in Florida, USA. Topics covered included:--

- Sampling strategies
- Technologies for detecting genetic variation
- Genetic analysis:
  - bioinformatics and the use of molecular genetic databases
  - estimating genetic diversity with molecular markers
  - phylogenetic algorithms: use and interpretation
  - phylogeography
  - population structure and demographic history
  - kinship and paternity assessment
- Emerging pathogens in natural populations
- Integration of genetics in conservation management

2006 - July 17<sup>th</sup> – 21<sup>st</sup> - Attended a one week course on Corporate Governance at Eastern and Southern Africa Management Institute Arusha, Tanzania. The course was sponsored by World Bank.

2005 - November 4<sup>th</sup> – 18<sup>th</sup> - Attended a 2 week communication course titled “Excellence in reporting science” at Center for Disease Control and Prevention in Kenya Medical Research Institute. The course was run by Elliott Churchill, a senior communication officer at CDC, Atlanta

2004 - September 13<sup>th</sup> – 18<sup>th</sup> – Attended an HIV/AIDS trainer of trainees work shop at JKUAT. The aim of the workshop was to prepare lecturer in the Zoology Department to teach HIV/AIDS education to undergraduate student.

2004 - March 8<sup>th</sup> – 19<sup>th</sup> – Attended a Participatory Natural Resource Planning and Governance Course for Practitioners at MS-Training Center for Development Co-operation, Arusha – Tanzania.

1998 - June 3<sup>rd</sup> – 20<sup>th</sup> - Attended two week training on elephant’s research techniques at Amboseli Elephant Research Project.

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### Key competencies

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- I have over ten years in-depth people skills and management experience; having risen from a Tutorial Fellow, Lecturer, Head of Department of Zoology and now Senior Lecturer and an elected Dean School of Biological Sciences, where I was managing over 70 staff both academic and non-academic and a budget of over 5 Million KShs per year.
- I have sufficient experience in planning, designing, and management of research in environmental and natural sciences. I have written several grant applications that have attracted over KShs 20 Million and successfully executed the projects as proposed.
- I served as a Director of Athi Water Services Board where I was alternate chair of the Audit Committee. This gave me fair exposure to Governance of State Corporations.
- I served as Chairman, Mwala Water and Sanitation Company for 8 year from 2010 to 2018. I managed to develop the five key management areas namely – strategy, infrastructure, technology, finance and human resources.

- I have experience in rangeland condition assessment techniques to optimize wildlife stocking levels for different species and setting species specific harvesting off-takes using plant biomass – animal biomass relational models and techniques.
- I have working and practical competencies in use and application of various computer packages, e.g. Word processing, spreadsheet, statistical, and radio tracking packages, and GIS.
- I have an advanced leadership training in organizational development from USIU-A. Core areas of the training include preparation and interpretation of accounting and financial data for managerial decisions. Analyzing organizational behavior and recommend appropriate organizational development interventions. Understanding transformational leadership and change management skills. Formulate, analyze and evaluate strategic management and human resource management decisions and plans. Design and evaluate Corporate Social Responsibility (CSR) strategies and programs in a multicultural environment. Prepare grant proposals for fundraising and enhance ability to manage project resources. Develop research project proposals, collect data and prepare project reports.

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### **Teaching and examination experience and other University Assignments**

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2025 – April - Promoted to the position of Associate Professor in Zoology

2018 – September - Re-elected Dean School of Biological Sciences for a final term of two years

2016 – Developed the School of Biological Sciences Research Proposal and Thesis writing guide Book

2016 - August - Elected Dean School of Biological Sciences for a term of two years

2015 - April – Promoted to Senior Lecturer, Zoology Department, JKUAT

2014 - 2016 - Developed four new programmes: - BSc Environmental Sciences, BSc Fisheries and Aquaculture Sciences, BSc Applied Biology and BSc Zoology. Development of these programs was my turnaround strategy to transform Zoology Department from dying 40 students Department in 2013 to a vibrant rejuvenated Department with a student around 600 students 2016.

2013 - August to 2016 August – Appointed Chairman of Department of Zoology

2009 - November to April 2016 – Lecturer, Zoology Department, JKUAT

2004 – 2009 Tutorial Fellow, Zoology Department, JKUAT

1988 – 2002 Part time lecture in Zoology Department where I taught and examined internally the following units: -- Applied Ecology, Population Ecology and Wildlife Management

2010 – Coordinator of Department of Zoology post graduate activities

2009 – 3<sup>rd</sup> Nov – Promoted to Lecturer position in the Department of Zoology, JKUAT.

2009 – August – Appointed convener of Postgraduate Committee, Zoology Department.

2004 – 2009 Employed as a Tutorial Fellow at Zoology Department, JKUAT. I taught and examine the following units: -Biostatistics, Molecular Techniques, Molecular Genetics, Research Methods, Population Genetics, Applied Ecology, Population Ecology, Theoretical Ecology, Wildlife Management, Physical Environment, and Fundamentals of HIV-AIDS to both regular and ADP students in various years of study in different Universities including MKU, KUCT, etc.

2011 – Member of the JKUAT E-learning policy drafting committee and website development committee

### Research Activities

I have played different roles in the following research activities

| Year | Research/Project Title  | Role  | Budget                   | Funder     | Status                                       |
|------|---|---|--------------------------|------------|--|
| 2021 | Up scaling FaruGenBiT to Beta Version and Interphase it with <i>Kifaru</i> database to enhance genetic management and security rhinoceros           | <i>Principal Investigator</i>                 | <i>Kshs 2.2 Million</i>  | WWF-Kenya  | On going                                     |
| 2017 | Mass production and utilization of edible insects and cassava meal for feed security and improvement of livelihood for smallholder farmers in Kenya | <i>CO-Principal Investigator</i>              | <i>Kshs 6 Million</i>    | NRF        | Complete                                     |
| 2017 | Restoration of Degraded Rangelands: Case Study of Mixed Use Community Land and Lake Nakuru National Park  | <i>CO-Principal Investigator</i>              | <i>Kshs 19 Million</i>   | NRF        | Complete                                     |
| 2016 | Conservation and utilization of Oryx as an emerging livestock in arid and semi-arid areas in Kenya  | <i>Principal Investigator</i>                 | <i>Kshs 4.3 Million</i>  | JKUAT      | Complete                                     |
| 2015 | Up-Scaling of Cricket Farming and Utilization as a Source of Protein in Animal Feedstock  | <i>CO-Principal Investigator</i>              | <i>Kshs 4.3 Million</i>  | JKUAT      | Complete                                     |
| 2012 | Genetic typing of the lethal elephant probosciviruses in Kenya  | <i>2<sup>nd</sup> Supervisor, MSc student</i> | <i>Kshs 2.62 Million</i> | NCST       | Complete and published                       |
| 2010 | Development of DNA markers for use in wildlife forensics to enhance wildlife protection in Kenya  | <i>3<sup>rd</sup> Supervisor, PhD student</i> | <i>Kshs 6.6 Million</i>  | JKUAT/NCST | Complete and a PhD student graduated in 2014 |
| 2010 | The influence of fishing on life-history traits of reef fishes in coastal Kenya   | <i>2<sup>nd</sup> Supervisor PhD student</i>  | <i>Kshs 1.8 Million</i>  | NCST/KWS   | Complete and a PhD student                   |

|      |  |  |                          |                    |  |  |
|------|--|--|--------------------------|--------------------|--|--|
|      |  |  |                          |                    |  | graduated in 2016                          |
| 2010 | Molecular identification, phylogeography and genetic diversity of rift valley fever virus mosquito vectors in Kenya  | <i>4<sup>th</sup> Supervisor for MSc student</i> |                          |                    |  | Complete. An MSc student graduated in 2013 |
| 2010 | Greater Lake Elmenteita Conservation Area Management Plan (2010-2020)  | <i>Principal planner</i>                         | <i>Kshs 0.5 Million</i>  | NMK                |  | Complete                                   |
| 2007 | The population structure of the Kenyan black rhinoceros ( <i>Diceros bicornis michaeli</i> Zukowsky 1965) - insights from molecular phylogeography and genetic diversity                                   | <i>Principal investigator</i>                    | <i>Kshs 6 Million</i>    | USFW /JKUAT /CWlth |  | Complete                                   |
| 2009 | A preliminary analysis of the genetic diversity and population history of the desert black rhinoceros <i>Diceros bicornis bicornis</i> Groves 1965) in Namibia using both mtDNA and microsatellite markers | <i>Co-investigator</i>                           | <i>Kshs 3 million</i>    | IRF                |  | Complete                                   |
| 2008 | Yikivumbu community water supply and sanitation project proposal   | <i>Team leader</i>                               | <i>Kshs 0.93 Million</i> | KWST               |  | Complete                                   |
| 2007 | Tindress Wildlife Sanctuary Management Plan (2008-2018)  | <i>Principal planner</i>                         | <i>Kshs 0.35 Million</i> | Tindress           |  | Complete                                   |
| 2000 | Effects of browse availability and quality on black rhino ( <i>Diceros bicornis michaeli</i> Groves 1967) diet in Nairobi National Park, Kenya   | <i>Principal investigator</i>                    |                          |                    |  | Complete                                   |

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### Student Supervisory Activities

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| Student               | Level | Research/Project Title  | Status                            |
|-----------------------|-------|---|-----------------------------------|
| Triza Makena          | MSc   | Morphological and Molecular Characterization of Common Crickets Species in Kenya  | On going                          |
| George Wambugu Mwangi | MSc   | Use of Diversity and Abundance of Dung Beetles (Coleoptera: <i>Scarabaeidae: Scarabaeinae</i> ) As Indicator of Environmental Quality in Dedan Kimathi University Wildlife Conservancy. | On going                          |
| Ndaki M. Manyanza     | PhD   | Ecological Relationship of the Invasive Morning-Glory Plant ( <i>Ipomoea Hildebrandtii Vatke</i> ) with Wild Animals in Maasai Steppe Rangelands, Tanzania                              | On going                          |
| Peter Fundi Njagi     | PhD   | Ecology of Black and White Colobus Monkeys ( <i>colobus guereza kikenyuensis</i> ) reintroduced in Karura forest reserve, Kenya   | Published first paper             |
| Peninah Njoki         | PhD   | Phytochemical Characterization and Anti-oxidant Activity of Cucurbita Maxima Duchesne Seeds and Pulp Extracts   | Submitted for examination in 2025 |
| Edwin Robin Muga      | MSc   | Growth Performance, Fecundity and Sexual Growth Dimorphism of <i>Oreochromis Esculentus</i> and <i>Oreochromis Niloticus</i> Under Cage Culture in Kisii County, Kenya                  | Graduated in 2023                 |
| Mukembu Joan Mukiri   | MSc   | Use of Biological Control in Cabbage Production in East Africa  | Graduated in 2022                 |
| Mokono Maobe Isaac    | MSc   | Avian Abundance, Diversity and Conservation Status in Etago Sub-County Kisii County Kenya   | Graduated in 2022                 |
| Daniel Mokaya Mogaka  | MSc   | Influence of Crop and Non-crop Vegetation Heterogeneity on Avian Composition in the Agricultural Landscape of Muhoroni Sub-County, Kenya  | Graduated in 2021                 |
| Abraham Mayoike       | PhD   | Genetic Diversity and Phylogeography of <i>Glossina Palpalis Palpalis</i> and <i>Glossina Fuscipes Fuscipes</i> , Tsetse Fly Populations in Congo Brazzaville                           | Graduated in 2021                 |
| Irene Awino Onyango   | PhD   | Molecular Characterization and Barcoding of Varroa Mites and Varroa Mites Associated Viruses in Kenyan Honey Bee Colonies   | Graduated in 2019                 |
| Martha Nyachae        | MSc   | Effect Of Stocking Density and Diet on Growth and Survival of <i>Labeo Victorianus</i>  | Graduated in 2018                 |
| Stephen Atika Oyondi  | Msc   | Effects of Farming Activities on Bird Diversity and Abundance in Trans Mara Sub County Kenya  | Graduated in 2018                 |
| Rose Nyakemiso Sagwe  | MSc   | Effects of land use patterns on the diversity and conservation status of butterflies in Kisii highlands, Kenya  | Graduated in 2017                 |

|                              |     |   |                   |
|------------------------------|-----|---|-------------------|
| Eric Wekesa Wasike           | PhD | Diagnostic Procedures, Epidemiology and Genetic Diversity of Cryptosporidium Species in Bungoma County, Kenya   | Graduated in 2016 |
| Locham Albert Gamoe          | PhD | Effects of legal consumptive utilization practices of marine resource on their conservation status: a case study of Watamu Marine Park and Reserve in Kenya | Graduated in 2016 |
| Godfrey Omondi Kokeyo        | MSc | Effects of Papyrus Anthropogenic Disturbances on Abundance of Papyrus Yellow Warbler ( <i>Chloropeta Gracilirostris</i> ) in Yala Swamp, Kenya              | Graduated in 2016 |
| Patrick Mbuvi Mutua          | PhD | Functional Characterization of Peroxisomes and Peroxisome Proliferator Activated Receptor Gamma in the Chicken Respiratory System                           | Graduated in 2016 |
| Jackan Philip Mwanjala Moshe | MSc | Phylogeography and Population Genetic Structure of the Naked Mole Rats ( <i>Heterocephalus Glaber</i> Rüppell, 1842) in Kenya                               | Graduated in 2015 |
| Linda Allan.                 | MSC | The Efficacy of a Herbal Drug, Schitozim over Praziquantel in the Management of Schistosoma mansoni Infection in BALB/c mice                                | Graduated in 2015 |
| Julius Kinuthia Mwangi       | PhD | Use of DNA markers in wildlife forensics for conservation in Kenya  | Graduated in 2014 |
| Robert Nesta Kagali          | MSc | An Integrated Pest Management Approach of Amaranth Insect Pests in Meru County Kenya  | Graduated in 2014 |
| Rumberia Cecilia Njeri       | MSc | Molecular Identification, Phylogeography and Genetic Diversity of Rift Valley Fever Virus Mosquito Vectors in Kenya   | Graduated in 2013 |

### Other relevant experiences

2006-2008 - Spent 13 months at Cardiff University in the School of Biosciences, Evolutionary Biology Research Group Laboratory. I got excellent experience in molecular techniques, laboratory ethics and etiquette, within international set up.

2006 - Appointed **Director in the Athi Water Services Board** by the then Minister of Water. I gained excellent exposure in corporate governance.

2005 - Participated in the development of the Meru Conservation Area Management Plan, 2007-2017, as an expert on ecological issues. This General Management Plan was developed through a participatory planning process involving a cross section of Meru Conservation Area stakeholders, under the coordination of a Core Planning Team comprising representatives from Meru Conservation Area PA managers, KWS HQ planners, and County Councils of Isiolo and Mwingi officials.

2001 - January to date –Associate Resource Person at Capacity Development Africa. This is a professional business firm specialized in consulting on environmental issues. Project I participated in here include:--

- The development of a five-year management plan for Rhino Conservation in Kenya. In this project, my role was to review various drafts and harmonize them with the management plans available for the rhino core conservation areas in Kenya.
- Land use-cover patterns of Tana River National Primate Reserve. In this project I was the key resource person. I collected all the necessary background information of the study area, carried out site surveys, assisted in digitizing and interpretation of the maps and participated in the final presentation of the research findings at a seminar held KWS headquarters in November 2001.

2000 to 2004 - Part time Lecturer in Zoology and Architecture Departments at Jomo Kenyatta University of Agriculture and Technology. Course that I have taught include Applied Ecology, Population Ecology, Wildlife Management and Physical Environment.

1999 - April to Dec 2000 - In country Program Administrative Assistant for Minnesota Studies in International Development run by Technical Study Tours– Kenya Program. I was in charge of Student welfare, Internship searching and placements.

1997 - February to 1999 February. On a two year contract as a Resident Ecologist at Lewa Wildlife Conservancy, where I was in charge of the Research Department. Activities of the Department included: -- Vegetation monitoring, Rhino surveillance, Fire ecology studies, and Determine stocking densities of Browsers and Grazers for the Conservancy and advice on suitable species specific management techniques. I also gave lectures to educational institutions visiting the conservancy. Also I assisted the Partnership Department in collection and analysis of Participatory Rural Appraisal information.

1995 - Worked on an M. Phil thesis titled "*Effect of Browse Availability and Quality on the Black Rhino (Diceros bicornis michaeli Groves 1967) Diet in Nairobi National Park, Kenya*". Experiences attained include project formulation and implementation, fundraising and report writing. I did the statistical analysis at African Conservation Centre, where I got training in various computer statistical packages.

1994: -Two week fields work at Makerere University Biological station at Kibale Forest, Uganda. The role of a biological field station in applied research was well illustrated here.

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### Consulting experience

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2018: Pre-qualified as a Commission of University Education (CUE) Quality Assurance Peer Reviewer after successful training of Peer Reviewers held from 28-29 June 2018 at the Astorian Hotel Naivasha. Thereafter participated in the successful evaluation of a Master of Science in Bioinformatics (Msc. Bioinformatics) Programme of Pwani University; including a site visit 4<sup>th</sup> October 2018.

2010 - August - September: Contracted by Kimathi University College of Technology to develop a management plan for their Dedan Kimanthi University Wildlife Conservancy and a Business Plan for the conservancy.

2010 - May - July - Participated in the development of Aberdares Forest Ecosystem Management plan as a resource person and a specialist in Water Resources Management planning in accordance to the Protected Areas Planning Framework guidelines laid down by Kenya Wildlife Service

2009 - October – December - Contracted by National Museums of Kenya to prepare a management plan for the Greater Lake Elmenteita Conservation Area in accordance to the Protected Areas Planning Framework guidelines laid down by Kenya Wildlife Service

- 2003 - March - December Worked as an Administrative Assistant in a Socio-economic Consultancy on Assessment of Water Resources Management and Development: Issues, Challenges and Options in Kenya, World Bank
- 2002 - January - I was contracted by KWS to develop a Computerized Biological resources database for Masai Mara Ecosystem. In the same year I was also contract by the same institution to create a biological meta-data base for Nairobi National Park using internet technology.
- 2001 - September to December - In partnership with Kennedy Mwathe (Forest Programme Officer, KWS), We conducted an Environmental Impact Assessment for Watuka Community Water Project in Nyeri District, and the proposed Kedong Ranch southern boundary electric fence project.
- 2001 - January to March - Prepared a marketing plan for Indigo systems Ltd. to market and sell an information exchange search engine called “*Nunna world*” and for NexTech Ltd to enable them market and sell Enterprise Resource Planning Software called Peodesy. This software is specialized on managing the human resource but has the capacity to include other enterprise management components.
- 2000 - Contracted to review a report on “Assessment of community knowledge, attitude, practices and impact on land use policy in the Masai Mara region.
- 1999 - Contracted to review a report on “Wildlife population trends in Amboseli ecosystem”.
- 1994 - Participated in the training of A & K Safaris Tour Guide Refresher Course. I was a resource person.
- 1994 - Participated in the preparation of a Biodiversity inventory for Ol Donyo Sabuk National Reserve.

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#### **Awards and scholarships**

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- 2017 - Nominated IUCN Conservation Genetics Specialist Group Commissioner by IUCN
- 2010 - Awarded a scholarship by American Genetic Association amounting \$2400 to attend a short course on “*Recent Advances in Conservation Genetics, at the White Oak Conservation Center in Florida, USA*” from 7-29 February 2010
- 2007 - Awarded a research grant by US Fish and Wildlife amounting \$38,500 to study the genetics of Kenya black rhinoceros
- 2006 - Commonwealth Split-Site PhD Scholarship in Cardiff University, United Kingdom.
- 1997 - I was awarded a research grant by “Marcel Burgauer Foundation for the Protection of the African Elephant, Zurich, Switzerland”; to study the Effects of Elephants on Ecologically Fragile Habitats: Lewa Wildlife Conservancy, Kenya
- 1994 - Awarded a research grant by African Conservation Centre and the Zoological Society of London.
- 1993 - Awarded a study scholarship by Kenya Wildlife Service to study Master of Philosophy Degree in Wildlife Management, Moi University. 1991: Awarded a certificate of merit by Moi University for rendering outstanding services to the University community as student leader.
- 1989 - Awarded a study scholarship by The Government of Kenya, to study for a Bachelor of Science Degree in Wildlife Management, Moi University.

### Conferences, Seminars and Workshops

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- Muya SM, 2019.** *Genetic management options of black rhinoceros in East Africa.* East African Community Rhino Management Group (EAC RMG) workshop. Kibo Palace Hotel, Arusha - Tanzania. – June 2-6<sup>th</sup>.
- Muya SM, 2018.** *FaruGene Bioinformatic Tool for managing Black Rhinoceros Metapopulation Genetics and Translocations in Kenya. The tool is in piloting stage.* East African Community Rhino Management Group (EAC RMG). Akagera Safari Lodge at Akagera NP, in Rwanda. – 27<sup>th</sup> February to 2<sup>nd</sup> March 2018
- Muya SM, 2017.** *Kenya Rhinoceros Genetics studies and implications to rhino conservation.* Kenya Rhinoceros Specialist Group (RSG) Black Rhino National Conservation Strategy planning workshop at Sawela Lodge, Naivasha, Kenya, 9<sup>th</sup> – 10<sup>th</sup> May 2017.
- 2013 - Attended a conference of the African Rhino Specialist Group that was held at Naro Moru River Lodge, Kenya, from the 17<sup>th</sup> to the 23<sup>rd</sup> of February 2013.
- 2008 - May 21-23 – Attended an International Workshop on Conservation of the Bornean Elephants in Sabah, Malaysia. In this conference I presented a poster on Indirect Molecular Methods of estimating population size of elusive forest animals.
- 2006: - 17 - 18 October – Attended a three days workshop in Nairobi on Meru Conservation Area as a resource person. The workshop was organized by Conservation Development Centre, Kenya.
- 1998: - August 20<sup>th</sup>: Attended a seminar on “The Ngare Ndare Forest: Conservation Strategies” organized by KWS. I was a facilitator.
- 1996: - February 7<sup>th</sup>: Attended a seminar organized by Kenya Wildlife Service, Department of Biodiversity Conservation. PAPER Presented: “*Effects of Browse Availability and Quality on the Foraging Responses of Black rhino (*Diceros bicornis michaeli* Groves 1967) in Nairobi National Park, Kenya*”

### Publications

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- Fundi P, **Muya SM**, Kiiru W, Kagali RN. **2025.** Demography of reintroduced Mount Kenya guereza (*Colobus guereza kikuyuensis*) at Karura Forest, Kenya *Primate Biology*. <https://pb.copernicus.org/articles/12/1/2025/pb-12-1-2025.pdf>
- Njoki, M. P., Rebecca, W., **Shadrack, M.**, Makokha, A., Abubakar, L., Mogaka, S., Ozwara, H. **2024.** Effect of aqueous and ethanol extracts of *Cucurbita maxima* seed on fasting blood glucose in alloxan-induced rats. *J Adv Biotechnol Exp Ther.* 7(3): 597-611. eISSN: 2616-4760, <https://doi.org/10.5455/jabet.2024.d51>
- Muga ER, Wakibia JG, Liti DM, **Muya SM** **2021.** Growth Performance, Fecundity and Sexual Growth Dimorphism of *Oreochromis Esculentus* and *Oreochromis Niloticus* Under Cage Culture in Kisii County, Kenya. *Journal of Agriculture, Science and Technology*. <https://ojs.jkuat.ac.ke/index.php/JAGST/index>
- Mukiri M.J, Nyasani j, **Muya SM**, Nyanjom SG. **2020.** Establishment of an Exotic Parasitoid *Cotesia vestalis* in Coastal Areas of Kenya as Biological Control Agent of *Plutella xylostella*. In: Niassy S., Ekesi S., Migiro L., Otieno W. (eds) Sustainable Management of Invasive Pests in Africa. Sustainability in Plant and Crop Protection, vol 14. Springer, Cham. [https://doi.org/10.1007/978-3-030-41083-4\\_10](https://doi.org/10.1007/978-3-030-41083-4_10)

- Mutua MP, **Muya S**, Muita G **2020**. A General Perspective of microbiota in Human Health and Disease. *Arch Clin Microbiol* Vol. 11 No. 2:106
- Mayoke A, Ouma JO, Mireji PO, Omondi SF, **Muya SM**, Itoua A, Okoth SA, Bateta R **2020** Population Structure and Migration Patterns of the Tsetse Fly *Glossina fuscipes* in Congo-Brazzaville. *The American Journal of Tropical Medicine and Hygiene*. Volume/Issue: Volume 104: Issue 3 <https://doi.org/10.4269/ajtmh.20-0774>
- Mayoke A, **Muya SM**, Ouma JO, Mireji PO, Bateta R, Itoua A, Omondi SF, Okoth SA, **2020** Genetic diversity and phylogenetic relationships of tsetse flies of the palpalis group in Congo Brazzaville based on mitochondrial based on cox1 gene sequences *Parasites Vectors* (2020) 13:253 <https://doi.org/10.1186/s13071-020-04120-3>
- Mogaka DM, **Muya SM**, Ndwigah F, Ndanganga P, **2019**. Diversity, Abundance, Richness, and Birds of Conservation Interest in Nyando Sugar Belt, Muhoroni Sub-County, Lake Victoria Basin, Western Kenya. *Open Journal of Animal Sciences* (9) Page 268-285. Scientific Research Publishing Inc
- Muya S M**, **2019**. Phylogeography of the eastern black rhinoceros (*Diceros Bicornis Michaeli*) in Kenya. *Journal of Biodiversity and Ecological Sciences* Volume 14, Number 5, Page 110-123. International Network For Natural Sciences Publisher, <http://www.innspub.net>
- Mokono MI, **Muya SM**, Kiiru W, Muchane M, **2019**. Avian Abundance, Diversity and Conservation Status in Etago Sub-County Kisii County Kenya. *Open Journal of Ecology* (9) Page 157-170. Scientific Research Publishing Inc
- Muya SM**, **2019**. Students Perceptions on the Quality of Teaching by Faculty at Jomo Kenyatta University of Agriculture and Technology in Kenya. *Higher Education Research* (4) 1. Scientific Research Publishing Inc
- Onyango IA, **Muya SM**, Kabochi S, Kutima H, Kasina M, **2018**. Apiarists Awareness and Responses to Honey Bee Colony Parasite and Pathogen Infections in Kenya. *International Journal of Natural Resource Ecology and Management* (3) 4Page 46. Science Publishing Group
- Muchirah PN, Waihenya R, **Muya SM**, Abubakar L, Ozwara H, Makokha A, **2018**. Characterization and anti-oxidant activity of Cucurbita maxima Duchesne pulp and seed extracts. *J Phytopharmacol* (7) 2Page 134-140. Pharmacognosy and Phytomedicine Research
- Onyango IA, Skilton, R, **Muya SM**, Kabochi S, Kutima H, Kasina M, **2017**. Varroa mites, viruses and bacteria incidences in Kenyan domesticated honeybee colonies. *East African Agricultural and Forestry Journal* (82) 1Page 23-35. Taylor & Francis
- Locham AG, Wakibia JG, Kaunda-Arara B, **Muya SM**, **2017**. Spatial variation in growth and mortality parameters of the marbled parrotfish (*leptoscarus vaigiensis* quoy and gaimard, 1824) on different reefs along the kenyan coast. *Journal of agriculture, science and technology* (18) 1.
- Nyachae M, **Muya SM**, Ogila K, Orina P, **2017**. Effects of Stocking Density and Diet on the Growth and Survival of Labeo victorianus Fish. *International Journal of Agriculture and Environmental Research*, 3 (1):2225-2241
- Moodley Y, Russo IR, Dalton M, Kotze´ DL, **Muya SM**, Haubensak P, Balint B, Munimanda, GK, Deimel C, Setzer A, Dicks K, Herzig-Straschil B, Kalthoff DC, Siegismund HR, Robovsky´ J, et al **2017**. Extinctions, genetic erosion and conservation options for the black rhinoceros (*Diceros bicornis*). *Scientific Reports - nature.com* 7, 41417.

- S Ngene, Okello MM, Mukeka J, **Muya SM**, Njumbi S, Isiche J **2017** Home range sizes and space use of African elephants (*Loxodonta africana*) in the Southern Kenya and Northern Tanzania borderland landscape *International Journal of Biodiversity and Conservation* 9 (1), 9-26
- Dicks KL, Webster LMI, McDowall I, **Muya SM**, Hopper J, O'Donoghue P, **2016**. Validation studies on dinucleotide STRs for forensic identification of black rhinoceros *Diceros bicornis*. *Forensic Science International: Genetics* 26, e25-e27
- Onyango I, Skilton R, **Muya SM**, Michuki G, Kabochi S, Kutima H, Kasina M, **2016**. Profiling of honey bee viruses in Kenyan honey bee colonies. *Bulletin of Animal Health and Production in Africa* (64) 1Page 119-127. Inter-African Bureau for Animal Resources
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#### Books and Book Chapters

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- Muya, S.M, Maranga R O and Ogila K O 2008.** FUNDAMENTALS OF HIV/AIDS EDUCATION: A Handbook for Students at Tertiary Institutions. Flora publishers. Nairobi Kenya.
- Shadrack Ngene, Steve Njumbi, **Shadrack Muya, Bernard Ngoru, Martha Nzisa, Elephus Bitok, Jeremiah Poghon, , Alex Gombe, 2013 Chapter 1 -** Satellite-Linked GPS Collars Deployed on Elephants in Tsavo Ecosystem, Kenya (pp. 1-32) in *Recent Advances in Satellite Research and Development.* Nova Sciences Publishers. ISBN: 978-1-62417-443-8, Pages: 184

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#### International Travel Experiences

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I have travelled to the following countries and towns:--

| Year       | Country         | Town  |
|------------|-----------------|---|
| 1993       | Uganda          | Kampala, Entebbe, Bwindi                      |
| 2004, 2007 | Tanzania        | Arusha, Dar el Salaam, Zanzibar               |
| 2006, 2007 | United Kingdom  | Cardiff, London, Manchester, Swansea, Reading |
| 2008       | Netherlands     | Amsterdam, Enschede, Rotterdam                |
| 2008       | German          | Berlin  |
| 2008       | Malaysia - Saba | Kota Kinabalu                                 |
| 2011       | USA             | New York, Boston, Connecticut                 |
| 2018       | Rwanda          | Kingali                                       |

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### Other experiences

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2021 – February 2021 – Elected Universities' Academic Staff Union JKUAT Chapter Secretary  
General to champion and safeguard JKUAT academic staff welfare issues.

2016- to 2020- Elected Dean, School of Biological Sciences

2013-2016 – Head of Zoology Department. Developed four new programs and thus increased student population from 40 student in 2013 to 600 students in three years

1998: -Started Lewa Birders Club. The primary objective of the club was to spread knowledge and interest of Lewa's birdlife to members and other nature lovers and sensitize them on the need for birdlife conservation.

1997: -Member of the East Africa Natural History Society. This gives me an opportunity to mix with other Naturalist.

1995: -Participated in a refresher course for Abercrombie and Kent driver-tour guides as a resource person for two Months. In these courses I taught topics on: 1 *Identification and natural history of African wildlife*, 2 *Communication and public relation in conservation areas*.

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### Career objective

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It's my endeavor to participate in various conservation and management programs in order to improve my management and consultancy skills. I look forward to challenges and opportunities where I can put my knowledge and education into practice.

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### Areas of special interest

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- Education and sustainable utilization of natural resources.
- Large mammal ecology, behaviour, genetics, management and conservation.
- Integration of computer technology into the science and art of wildlife management and administration

**Hobbies:** Golf, Cycling, Traveling, Fine art, Science fiction, adventure and music.

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### Referees


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I Shadrack Muvui Muya hereby do confirm that the particulars given on this CV are correct to the best of my knowledge. Signature  Date 14th January 2026