



Dr. Muwanika B Vincent is an Associate professor of conservation and Evolutionary biology in the Department of Environmental Management. Over the last 15 years, his research has concentrated on understanding and explaining processes that drive diversification and extinction (human and natural) in a wide range of taxa. He has sought to understand how different taxa responded to current human induced activities and climatic shifts and how these could be used to predict future species responses. He has also sought to understand local community behavior and attitudes that influence utilization of biological resources and how such behavior could be used to enhance livelihoods. In recent years his research scope has expanded to include understanding why some selected wildlife/livestock diseases persist despite the several control measures. The hypothesis being that rapid change in the genomes of these organisms could underlie this phenomenon. In this respect, his research group is studying Foot-and-Mouth disease and African swine fever viral genomes recovered from ongoing outbreaks as well as isolates spanning the last 50 years. The goal is to contribute towards disease control especially those of economic importance. Selected Publications

1. Tusiime FM, Gizaw A, Windimu T, Masao TA, Abdi AA, **Muwanika V**, Travnicek P, Nimomisa S, Popp M, Eilu G, Bronchman C, Pimentel M (2017) Sweet vernal grasses (*Anthoxanthum*) colonized African mountains along two fronts in the Late Pliocene, followed by secondary contact, polyploidization and local extinction in the Pleistocene. *Molecular Ecology*. 26 (13): 3513–3532
2. Kabi F, **Muwanika V** and Masembe C (2017) Indigenous cattle breeds and factors enhancing their variation, potential challenges of intensification and threats to genetic diversity in Uganda. *Animal Genetic Resources*. 58: 1-12
3. **Muwanika BV**, Kabi F, Masembe C (2016). Population genetic structure of *Theileria parva* field isolates from indigenous cattle populations of Uganda. *Ticks and Tick borne diseases* [7\(2\)](#) 291–297
4. Dhikusooka TM, Ayebazibwe C, Namatovu A, Belsham J, Siegismund RH, Wekesa NS, Balinda SN, **Muwanika BV** and TjørnehøK (2016) Unrecognized circulation of SAT 1 foot-and-mouth disease virus in cattle herds around Queen Elizabeth National Park in Uganda. *BMC Veterinary Research* 22(5) DOI 10.1186/s12917-015-0616-1
5. Kabi F, Masembe C, Negrini R and **Muwanika V** (2015) Patterns of indigenous female cattle morphometric traits variations in Uganda: Evidence for farmers' selection to enhance agro-ecological fitness. *Animal Genetic Resources* 56: 79-90