POSTGRADUATE STUDENT WEBSITE PROFILE

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| Registration Number | J87/51230/2017 |
| Level (Masters / PhD) | PhD |
| Full Names | Richard Gashururu Simba  |
| Clear half body Photo(Not the face only ) | C:\Users\HP\Desktop\WhatsApp Image 2022-10-13 at 16.47.19 (1).jpeg |
| Student Short Biography (Max 250 words) | Richard Gashururu is a Rwandan citizen holding a bachelor of veterinary medicine (Rwanda), a master’s degree in diseases control - tropical animal health (Belgium), and a Ph.D. in applied veterinary parasitology (Kenya). He works for the School of veterinary medicine of the University of Rwanda as a faculty with duties including Teaching, Research / Consultancy, and Community outreach. Before joining academia, he worked for the Ministry of agriculture and animal resources, under the directorate of livestock. Richard’s research interest is in vector-borne and neglected tropical diseases. The Ph.D. scholarship was through the Borlaug Higher Education for Agricultural Research and Development (BHEARD) program; under the Michigan State University. The program was supported by the United States Agency for International Development (USAID), as part of the Feed the Future initiative. The PhD research project was done in collaboration between the Rwanda Ministry of Agriculture and animal resources, the International Centre of Insect Physiology and Ecology (ICIPE), Nairobi Kenya and the animal health division of FAO-Roma. He is an active member of the Rwanda Neglected Tropical Diseases-Sub Technical Working Group. He has a wide knowledge of One Health acquired from various drills and is a member of Africa One Health University Network (AFROHUN) Rwanda, (formerly One Health Central and Eastern Africa -OHCEA) and an alumnus of OHI- Rx One Health of University of California Davis.  |
| Thesis Title | Epidemiology of *Trypanosoma* infections in cattle and *Glossina* flies at the human-wildlife-livestock interface of Akagera national park, Rwanda |
| Thesis Abstract(Max 250 words) | African Trypanosomosis is a neglected disease of animals and humans in Africa. The disease is transmitted by tsetse and biting flies. In Rwanda, tsetse flies and trypanosomosis are reported in areas around the Akagera National Park but the situation has previously not been well documented. This study aimed at determining (i) the distribution of species of *Glossina* (ii) the *Trypanosoma* species circulating in tsetse flies, their infection rate, and the endosymbionts, (iii) the hosts’ preference for the tsetse flies, and (iv) the *Trypanosoma* species circulating in cattle, at the wildlife-livestock interface of Akagera National Park in Rwanda. An entomological survey was conducted inside the park and its surroundings to determine the distribution of *Glossina*. Trypanosome infections, endosymbionts and blood meal were detected in tsetse flies using PCR, High Resolution Melting and sequencing. Microscopy and immunological rapid test were also used to detect the presence of trypanosomes in the blood. Two species of *Glossina*, i.e. *G. pallidipes* and *G. morsitans centralis* were identified. The overall trypanosome infection rate in tsetse was 13.9% in the head and 24.3% in thorax. Eight species of trypanosomes were identified (*T. brucei brucei*, *T.congolense* Kilifi and savannah, *T. evansi*, *T.godefreyi*, *T. grayi*, *T.simiae*, *T.theileri* and *T.vivax*. Two endosymbionts (*Sodalis* and *Wolbachia*) were found in tsetse flies. No *Spiroplasma* and SGH Virus were found. The buffalo was the most preferred host. The overall prevalence of trypanosome infections in cattle was 18.7% by PCR/HRM. *T. congolense* was the most prevalent. No *T.brucei rhodesiense* was found in tsetse and cattle blood. The area should be targeted in control activities. |
| Student’s Google scholar link(affiliated to student’s university email) | - |
| Other relevant academic links | <https://www.linkedin.com/in/richard-gashururu-phd-54425833><https://www.researchgate.net/profile/Richard-Gashururu> Twitter: @gasirich |
| Research Supervisors | Prof. Ndichu Maingi (UoN)Prof. Samuel M. Githigia (UoN)Dr. Daniel Masiga (ICIPE)Dr. James Gashumba (Rwanda polytechnic) |