



Marvelous Sungirai

Academic with 13 years of experience as a lecturer, researcher and scientific editor.

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Education

PhD (Applied Biology)

May 2013 – Nov 2017

Ghent University, Ghent, Belgium

The Belgian Government awarded me a scholarship through the Department of Development Cooperation, and I was hosted by the Institute of Tropical Medicine to undertake PhD studies.

I used statistical, epidemiological, molecular, and geographic information systems to describe the ecological distribution of Ixodid ticks parasitizing cattle in Zimbabwe, understanding their population genetics and diversity, acaricide resistance, and management by communal farmers. During this time, I also sharpened my skills by taking basic, applied, advanced, and molecular epidemiology credit courses. Consequently, I published five peer-reviewed articles in SCIE journals.

Post-graduate Diploma in Tertiary Education

Aug 2012 – Sep 2013

Midlands State University, Gweru, Zimbabwe

I enrolled in this diploma to sharpen my pedagogical and andragogical skills and took the following courses: Foundations of Education (Sociology, Psychology, and Philosophy), Assessment and Evaluation Techniques, Instructional Technology, Curriculum Issues, Administrative Issues, Didactics and Teaching Practice. I graduated with a merit.

MSc Tropical Animal Health

Sep 2011 – Jul 2012

Institute of Tropical Medicine, Antwerp, Belgium

I was awarded a scholarship by the Belgian Government through the Department of Development Co-operation (DGD) to undertake a MSc. in Tropical Animal Health. During this time, I developed skills in the control of infectious, vector-borne, and helminth diseases, laboratory diagnosis, and animal health research methods. I graduated with a B+ and was awarded the Antwerp Provincial Prize by the City's Board of Governors for being the overall best student in my class.

BSc (Hon) Livestock and Wildlife Management

Mar 2003 – Dec 2006

Midlands State University, Gweru, Zimbabwe

This was my foundational degree and my major courses were Biochemistry, Genetics, Ecology, Parasitology, Agricultural Statistics, Animal Production, Wildlife Production and Natural Resources Management. I graduated with an upper second class honours degree.

Personal details

Date of birth

January 29, 1984

Place of birth

Bulawayo, Zimbabwe

Driver's license

Class Four

Gender

Male

Nationality

Zimbabwe

Civil status

Married

LinkedIn

[linkedin.com/in/marvelous-sungirai-20402027](https://www.linkedin.com/in/marvelous-sungirai-20402027)

Skills

Leadership



Administration



Time Management



Communication



Problem-Solving



Computers



Statistical Analysis



Report Writing



Employment

Assistant Lecturer

Feb 2009 – Aug 2011

Midlands State University, Gweru, Zimbabwe

My duties involved teaching, research, and community service. I gave tutorials in the following courses: animal health, grassland science, and range animal management. I sat on the university's computer committee.

Lecturer

Sep 2012 – Feb 2019

Midlands State University, Gweru, Zimbabwe

After graduating with a MSc, I was promoted to lecturer grade. I taught the following courses: animal health, animal breeding, and animal biotechnology. I helped students with their dissertations and served on the International Relations, Research Board, and Editorial and Publications committees. I was also appointed editor-in-chief of one of the university journals focusing on agriculture, science, and technology.

Senior Lecturer and Head of Department

Feb 2019 – Present

Midlands State University, Gweru, Zimbabwe

I was promoted to senior lecturer based on my teaching, research, and university service. I provide academic leadership to the department, I am the chief examiner of the department and am responsible for quality control of the process, and I supervise a staff complement of 12 academic and three non-academic staff. I supervise the learning and teaching activities of 150–200 students at any given time. I am a member of the faculty planning committee and the university senate. I have also acted as deputy dean and dean in the absence of the incumbents.

Freelance Academic Editor

Jan 2020 – Present

Self, Gweru

I have done freelance academic editing for several companies, including Enago, Editage, and Capstone Editing. I have edited journal articles, masters and PhD theses in different subjects, including biochemistry, microbiology, genetics, molecular biology, immunology, public health, education, animal husbandry, and agriculture.

Appointments

- January 2020–January 2022 I served as the Deputy Chairperson of the University's Research Board, which is mandated with the administration of the university's research funds.
- September 2019–present, I was appointed to serve as a deputy chairperson of the board of a state-owned enterprise, Silo Food Industries Limited, which is an FMCG. Here I chair the co-operate strategy and projects as well as the finance sub-committees of the board.

Project Management

Molecular Biology

Disease Control

Epidemiology

Languages

English, Shona, and Ndebele

Hobbies

- Reading
 - Music
 - Soccer
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Extracurricular activities

Treasurer

Gweru Bowling Club, Gweru

Oct 2022 – Present

My responsibilities including managing the funds of the club, supervising the restaurant and bar sections ensuring adequate stocking levels.

Courses

- Qualitative and Mixed Methods in International Health Research** Feb 2022
This course was hosted by the Institute of Tropical Medicine in Antwerp Belgium.
- Introductory course for Editors** May 2021
The course covered aspects of standard and premium editing services and was provided by Cactus Communications.
- Applied Epidemiology** Oct 2017
This is a 3 ECTS credit course organized by the Institute of Tropical Medicine with the following components: Import risk analysis simulations, multi-testing results analysis in a Bayesian Framework, and differential equation based compartmental transmission modelling.
- Advanced Epidemiology** May 2017
4 ECTS credits organized by the Institute of Tropical Medicine. Topics covered include: Generalized linear models, generalized linear multi-level mixed effects models, survival analysis, and an introduction to risk analysis.
- Basic Epidemiology** May 2016
4 ECTS credits organised by the Institute of Tropical Medicine. Topics covered include: Introduction to Statistics, disease prevalence and incidence measures of association, epidemiological studies, and statistical testing.
- Multivariable Analysis** Apr 2016
5 ECTS credits organised by the Institute of Tropical Medicine. Topics covered: linear regression, logistic regression, and survival analysis.
- Applied Molecular Epidemiology of Infectious Diseases** May 2016
3 ECTS credits. Organised by the Institute of Tropical Medicine. Topics covered: Introduction to molecular epidemiology, population genetics, epidemiological studies, next generation sequencing, sanger sequence analysis, BLAST and online databases, protein analysis, and multiple sequence alignment, phylogeny construction, DNA and RNA extraction, PCR, qPCR, RTPCR analysis, fragment analysis, epidemiology of malaria and leishmaniasis.
- Tick Identification** Nov 2014
Organised by the University of Pretoria. Topics covered: Biology and Identification of hard and soft ticks.
- Molecular Biology** Nov 2014
Organised by the University of Pretoria. Topics covered: DNA and RNA extraction; Sanger sequencing; BLAST; phylogenetic analysis.
- A Primer to Quantitative Genetics** Mar 2015
Organised by the University of Nebraska-Lincoln. Topics covered: Basic model for quantitative genetics, sources of variation, heritability, family resemblance and heritability, selection response and family selection.
- Selection Index Theory and Application-** Mar 2015
Organised by University of Nebraska-Lincoln. Topics covered: design

of animal breeding programmes, selection index theory and definition of breeding objectives, derivation of economic weights, and predicting selection response.

Heterosis and Crossbreeding Systems May 2015
Organised by South Dakota University. Topics covered: Principles of heterosis and mating systems, and evaluation of crossbreeding systems.

Economic Breeding Programmes May 2015
Organised by Kansas State University. Topics covered: Review of concepts relevant to selection index, systems analysis, linear programming and simulations.

Methods in Data Collection May 2013
Organised by University of Antwerp.

Methods in Research Design May 2013
Organised by University of Antwerp.

Publications

1. Mugandani, R.; Muziri, T.; Murewi, C.T.F.; Mugadza, A.; Chitata, T.; Sungirai, M.; Zirebwa, F.S.; Manhondo, P.; Mupfiga, E.T.; Nyamutowa, C.; Mudereri, B.T.; Mugari, Z.E.; Mwadzingeni, L.; Mafongoya, P. Mapping and Managing Livelihoods Vulnerability to Drought: A Case Study of Chivi District in Zimbabwe. *Climate* 2022, 10, 189. <https://doi.org/10.3390/cli10120189>

2. Esculudis, C., De Matos, C., Cala, A., Sungirai, M., Madder, M., & Mapatse, M. (2022). Morphological identification of ticks (Acari: Ixodidae) infesting donkeys (*Equus asinus*) in Maputo Province, Mozambique. *Experimental and Applied Acarology*, 1-13. <https://doi.org/10.1007/s10493-022-00693-z>

3. Chitombo, L., Lebani, K., & Sungirai, M. (2021). Acaricide resistance in *Rhipicephalus appendiculatus* ticks collected from different farming systems in Zimbabwe. *Tropical Animal Health and Production*, 53(4), 1-5.

4. Magwaba, T., M. Sungirai, K. Hove, and S. K. Awala. "Genetic and non-genetic factors influencing birth weight in the Tuli cattle breed of Zimbabwe." *Welwitschia International Journal of Agricultural Sciences* 1 (2019): 49-58.

5. Sungirai, M., Moyo, D.Z., De Clercq, P., Madder, M., Vanwambeke, S.O., De Clercq, E.M., 2018. Modelling the distribution of *Rhipicephalus microplus* and *R. decoloratus* in Zimbabwe. *Veterinary Parasitology: Regional Studies and Reports*. 14C, pp.41-49., <https://doi.org/10.1016/j.vprsr.2018.08.006>.

6. Moyo, D.Z., Chakuya, J., Sungirai, M., 2018. Ixodid ticks of African buffalo (*Syncerus caffer*), impala (*Aepyceros melampus*) and elephant (*Loxodonta africana*) in five protected park estates in the Zambezi valley, Zimbabwe. *Experimental and Applied Acarology* 75 (4), 409-417.

7. Marvelous Sungirai, Samantha Baron, Nicolaas A. Van der Merwe, Doreen Zandile Moyo, Patrick De Clercq, Christine Maritz-Olivier, Maxime Madder: Population structure and genetic diversity of *Rhipicephalus microplus* in Zimbabwe. *Acta Tropica* 01/2018; 180:42-46., DOI:10.1016/j.actatropica.2018.01.003

8. Marvelous Sungirai, Samantha Baron, Doreen Zandile Moyo, Patrick De Clercq, Christine Maritz-Olivier, Maxime Madder: Genotyping acaricide resistance profiles of *Rhipicephalus microplus* tick populations from communal land areas of Zimbabwe. *Ticks and Tick-borne Diseases* 2018, 9(1)2-9, DOI:10.1016/j.ttbdis.2017.10.017
9. Sungirai, M., Abatih, E.N., Moyo, D.Z., Clercq, P., Madder, M., 2017. Shifts in the distribution of ixodid ticks parasitizing cattle in Zimbabwe. *Medical and Veterinary Entomology* 31, 78-87.
10. Sungirai, M., Moyo, D. Z., De Clercq, P., & Madder, M. (2016). Communal farmers' perceptions of tick-borne diseases affecting cattle and investigation of tick control methods practiced in Zimbabwe. *Ticks and tick-borne diseases*, 7(1), 1-9.
11. Sungirai, M., Masaka, L., Nyamukanza, C., Chimwaza, E.P. (2015). Effect of grouping weaned piglets by weight classes: Evidence from Zimbabwe. *Midlands State University Journal of Science, Agriculture and Technology Special Edition*. 1-8
12. Masaka, L., Mhaka, V., Sungirai, M., & Nyamukanza, C. (2015). Growth performance of Brangus steers fed graded levels of sun-dried broiler litter as a substitute for cottonseed cake. *Tropical animal health and production*, 47 (6) 1055-1059. DOI:10.1007/s11250-015-0827-2.
13. Sungirai, M., Madder, M., Moyo, D. Z., De Clercq, P., & Abatih, E. N. (2015). An update on the ecological distribution of the Ixodidae ticks in Zimbabwe. *Experimental and Applied Acarology*, 66(2) 269-280. DOI: 10.1007/s10493-015-9892-5.
14. Timothy Gatora, Lawrence Masaka, and Marvelous Sungirai, "Effect of Cow Urine on the Growth Characteristics of *Fusarium lateritium*, an Important Coffee Fungus in Zimbabwe," *International Journal of Agronomy*, vol. 2014, Article ID 986068, 4 pages, 2014. doi: 10.1155/2014/986068
15. Marvelous Sungirai, Lawrence Masaka, and Tonderai Maxwell Benhura, "Validity of Weight Estimation Models in Pigs Reared under Different Management Conditions," *Veterinary Medicine International*, vol. 2014, Article ID 530469, 5 pages, 2014. doi: 10.1155/2014/530469
16. Lawrence Masaka, Marvelous Sungirai, Casper Nyamukanza & Chido Bhondai. 2014. Sow removal in a commercial pig herd in Zimbabwe. *Tropical Animal Health and Production*. 46 (5) 725-731, DOI:10.1007/s11250-014-0554-0.
17. Sungirai M., Masaka L. & Mbiba C. 2014. The prevalence of *Taenia saginata* cysticercosis in the Matabeleland Provinces of Zimbabwe. *Tropical Animal Health and Production*. 46 (4), 623-627 DOI: 10.1007/s11250-014-0538-0.
18. De Clercq E. M., Vanwambeke S. O., Sungirai M., Adehan S., Lokossou R. & Madder M. 2012. Geographic distribution of the invasive cattle tick *Rhipicephalus microplus*, a country-wide survey in Benin. *Experimental and Applied Acarology*. 58 (4), 441-452 DOI 10.1007/s10493-012-9587-0.

Conferences Attended

1. September, 2019 (Liverpool, UK)- 11th European Congress on Tropical Medicine and International Health, Oral Presentation, "Management of ticks and tick borne diseases by communal farmers in Zimbabwe".

2. November 2017 (Antwerp, Belgium)– 10th European Congress on Tropical Medicine and International Health, Poster Presentation, “Expansion in the distributional range of Ixodid ticks parasitising cattle in Zimbabwe”, Sungirai M., Moyo D.Z., De Clercq P., Madder M.

3. January 2015– “Dealing with the unexpected: the 2014 Ebola outbreak challenging both human and animal health”. Regional Alumni Network (Institute of Tropical Medicine). Villa das Arábias Boutique Hotel, Maputo, Mozambique (23–25 January 2015). Presented paper on the role of animal health specialist in the control of Ebola.

4. VIII International Conference on Ticks and Tick-borne Pathogens (TTP-8) 24–29 August 2014 Cape Sun Hotel, Capetown South Africa. Paper Presentation by Madder, M., De Clercq, E., Vanwambeke, S., Jansen, F., Sungirai, M. & Fannes, W. 2014. ‘What happened after the introduction of *Rhipicephalus microplus* in West Africa: displacement and hybridisation on a large scale’.

5. October 2011–Symposium, “Veterinary Medicine in the tropics”. Symposium jointly organized by be-troplive, VSF Belgium and the Faculty of Veterinary Medicine of Liège, Belgium.

6. October 2010– Zimbabwe Agricultural Science and Technology Conference at Midlands State University. Theme, “Science, Agricultural Research, Production and Policy; Perspectives, constraints and opportunities for sustainable food production.”

7. December 2005– Ecological research and protected area management, International Conference at Hwange National Park. I presented a poster on the efficiency of utilization of artificial game water supplies at Hwange National Park.

Grants / Fellowships

2018–2019– Midlands State University Research Board–Project Title: Population dynamics of *Boophilus* ticks and epidemiology of tick-borne diseases in Binga and Mazowe districts of Zimbabwe. Amount of \$USD15 715.

2014– 2015 Midlands State University Research Board–Project Title: Adaptability of cattle

breeds to climate change in Zimbabwe. Amount USD\$2 800.

2013 – 2017 – Belgium Development Co-operation (DGD), Belgium government. Ph.D. Scholarship.

2013– 2014 Midlands State University Research Board–Project Title: Factors influencing adoption of ethnoveterinary medicines by communal farmers in Zimbabwe. Amount USD\$1 700.

2011 – 2012 – Belgium Development Co-operation (DGD), Belgium government. Masters Scholarship.

2010–2011. Midlands State University Research Board–Project Title: Participatory and seroepidemiological survey of heartwater in Zimbabwe's Midlands Province. Amount USD\$5 142.

References

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Professor D.Z. Moyo

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