

Contributors



Joyce West

Is an early childhood education scholar at the University of Pretoria, whose work sits at the intersection of language, literacy, teacher education, and educational technology. Her research focuses on how young children learn to read and write in multilingual contexts, with particular attention to African language literacy development, orthographic features, readability, and the implications of linguistic complexity for equitable early-grade instruction. She works across mixed-methods and design-oriented approaches to generate evidence that is both theoretically robust and usable for classroom practice, including tools and resources that support teacher decision-making and inclusive learning. A central thread in her scholarship is the question of how pedagogical innovation, especially technology-mediated learning, can expand access to high-quality early literacy experiences while remaining ethically grounded and context-responsive. This includes interests

in learning analytics, human-machine teaching, and the careful integration of generative AI into teacher education and curriculum design. Dr West collaborates with practitioners and partners to translate research into professional learning and classroom-ready materials, with a strong emphasis on multilingual pedagogy, translanguaging-informed practices, and equity-driven assessment.

As a co-editor of this volume, she is committed to exploring how AI-generated children's literature can serve as a catalyst for responsive citizenship and sustainability education—supporting children's ecological literacy, empathy, agency, and sense of shared responsibility in ways that align with the Sustainable Development Goals.



Kayla Willemse

Is a lecturer in the Department of Early Childhood Education at the University of Pretoria, with research interests that span educational technology, coding and robotics, and broader digital innovation. Her work sits at the intersection of early childhood development, human-centred design, and educational technology. A central thread in her scholarship is how emerging technologies can be used in ethical, playful, and context-sensitive ways to strengthen learning, creativity, and meaningful participation in everyday life. She also engages with digital design and examines how artificial intelligence can influence the quality, efficiency, and ethics of work across contexts.

Dr Willemse is a Fellow of the African Institute for Data Science and Artificial Intelligence (AfriDSAI), is actively involved in diverse research

projects, serves on editorial teams, and has contributed as a consultant to a range of interdisciplinary initiatives. As a co-editor of this volume, she is committed to exploring how AI-generated children's literature can serve as a catalyst for responsive citizenship and sustainability education, supporting children's ecological literacy, empathy, agency, and a sense of shared responsibility in ways that align with the Sustainable Development Goals. Guided by a commitment to exciting, innovative practice, she is passionate about creating meaningful experiences that connect people, technology, and real-world needs.



Darshana Morar-Leather

Darshana is a scientist and teacher based at the University of Pretoria's Faculty of Veterinary Science, where she studies tiny creatures called ticks and their impact on animal health. Her work explores how ticks live, interact with animals, and spread pathogens that can make animals sick, helping people better protect livestock and wildlife. As part of a specialised research team, she investigates the smallest details using tools such as microscopes and shares the findings with other scientists and students. She teaches students training to become veterinary nurses and veterinarians, is passionate about teaching and discovery, and believes that even the smallest creatures play an important role in understanding and protecting the natural world.



Okuhle Natasha Sekujika

Okuhle Natasha Sekujika is a young lady who started her learning journey just like you. She went to school every day, loved asking questions, and wanted to learn more. Her favorite subjects were Biology (the study of living things) and Math. When she was 21, she continued her journey and graduated with degrees in Biological Sciences and in Genetics and Developmental Biology from the University of the Witwatersrand. She then completed a two-year internship at the University of Pretoria's Faculty of Veterinary Science, in the Department of Veterinary Tropical Diseases, where she expanded her knowledge and got to see and work with all kinds of interesting animals. She built great relationships with her coworkers and the role she took reinforced the importance of working with a team in her research environment. Currently, she is a full-time second-year MSc student doing research in Veterinary Science.



Andeliza Frederik

Dr Andeliza Frederik is a scientist who loves learning about insects and arachnids that live in nature. She studies ticks and their pathogens. Even though ticks are tiny, they can spread pathogens to animals and sometimes people which can make them very sick, so her work is very important. She works at the University of Pretoria in the Department of Veterinary Tropical Diseases, where she teaches students and helps them become scientists too. Andeliza also spends time outdoors collecting ticks from animals and the environment. She uses special tools and experiments in the lab to understand how pathogens spread and how to stop them.



Luis Neves

Meet Professor Luis Neves, a real-life science explorer!

Born in the sunny country of Mozambique, Prof Luis has spent nearly 30 years working as a veterinarian, which is a special doctor who takes care of all kinds of animals. He is a Professor of Veterinary Parasitology at the University of Pretoria, where he teaches students all about parasites — the tiny, uninvited guests like ticks that sometimes hitch a ride on animals.

Prof Luis is a world-class expert on ticks and the teeny-tiny germs they carry. He has traveled to many places, including the University of Liverpool in England, to study how these little bugs work and how to keep our animal friends healthy and happy. He has even written over 80 scientific

stories (called publications) about his discoveries! When he isn't busy teaching or studying ticks, he helps lead big science projects to solve mysteries about animal health.



Ludovica Ingletto

Ludovica Ingletto is an Italian PhD student who studies tiny organisms called ticks and the pathogens they can transmit. She has always been curious about the world and loves traveling and discovering new places. When she was 17, Ludovica won a scholarship that allowed her to spend part of her high school in Brazil. It was there, for the first time, that she learned that some germs, which cause diseases, can be transmitted from small organisms such as insects and ticks to humans. This discovery fascinated her and raised many questions: how do these diseases spread? Can we prevent them? From that moment, she understood that to truly protect people, it is important to take care of the environment and the animals around us. With these ideas, Ludovica studied Evolutionary Biology and is now a PhD student in infectious diseases of animals at the University of Bologna, Italy, where she studies pathogens (tiny organisms

that can cause diseases) and how they move between animals, the environment, and humans, adopting a One Health approach, which means recognising that the health of humans, animals, and the environment is closely interconnected. Currently, Ludovica is a visiting PhD student at the Tick Research Group, Department of Veterinary Tropical Diseases, University of Pretoria, South Africa, where she studies ticks and the pathogens they can transmit, learning from local researchers and exploring different parts of the world. She is particularly interested in how climate change is allowing tropical tick species to spread in Europe.

Glossary

Adult: The final stage of a tick's life where it is fully grown.

Arachnid: A group of animals that includes ticks, spiders, and scorpions; they have eight legs and no antennae.

Blood Meal: This is when a tick attaches to an animal or person and drinks their blood so it can grow to its next life stage.

Capitulum: The name for a tick's "head" area, which includes its mouthparts. Ticks have a false head – it is not a real head.

Festoons: Small rectangular notches or bumps that look like a pattern along the back edge of some ticks' bodies.

Germs: Teeny-tiny organisms that some ticks carry in their bodies which can make people or animals sick.

Gogga: A common South African word for a bug or insect.

Host: The person or animal (like a dog, cow, or meerkat) that a tick hitches a ride on to get a blood meal.

Hypostome: A part of the tick's mouth that looks like a tiny, jagged needle; it has hooks to help the tick stay stuck to the skin while it eats.

Larva: A "baby" tick that has hatched from an egg; at this stage, it only has six legs.

Life Cycle: The journey a tick goes through from an egg to a larva, then a nymph, and finally an adult.

Molt (Moult): When a tick sheds its outer "skin" to grow into its next life stage after eating.

Nymph: A "teenage" tick that has eight legs but is not yet a full adult.

Palps: Two parts on the tick's mouth that help it feel its surroundings and find a good spot to bite.

Questing: A behavior where a tick climbs to the top of a blade of grass and stretches out its front legs, waiting to grab onto a passing animal or person.

Scutum: A hard, shield-like plate on the back of a tick's body that protects it.

Tick Bite Fever: A sickness caused by a bacterium, spread by a tick bite; it can cause a high fever and a sore body.

Tweezers: A tool with thin tips used by adults to safely pull a tick straight out of the skin.

Vector: A scientific name for a bug (like a tick) that carries and spreads pathogens to people and other animals.

Veld: Open, grassy or bushy land where ticks often live and wait for hosts.

Veterinarian: A special doctor who takes care of animals and helps keep pets safe from ticks.