

CV Kees van Gestel

Emeritus Professor of Ecotoxicology of Soil Ecosystems
Faculty of Science,
Vrije Universiteit,
De Boelelaan 1085
1081 HV Amsterdam, The Netherlands
e-mail: kees.van.gestel@vu.nl
<https://research.vu.nl/en/persons/kees-van-gestel/>
<https://orcid.org/0000-0002-5651-0208>



Name: Cornelis A. M. (Kees) van Gestel
Date of birth: 1956-03-27
Place of birth: Gilze en Rijen, the Netherlands

Education:

- Agricultural University, Wageningen, graduated (with distinction) 1981.
Main subjects: * Soil Protection (degradation and mobility of oil components in soil; environmental aspects of land-farming)
* Microbiology (nitrogen fixation by free-living cultures of *Rhizobium* spp.)
- PhD graduation on the thesis "Earthworms in ecotoxicology", University of Utrecht, 1991.

Career:

2019-2022: Professor of Ecotoxicology of Soil Ecosystems within the Department of Ecological Science, Faculty of Science, Vrije Universiteit Amsterdam, The Netherlands
1992-2019: Associate Professor of Ecotoxicology within the Department of Ecological Science, Faculty of Science of the Vrije Universiteit Amsterdam (VUA), The Netherlands
1986-1992: Head of the Department of Soil Ecotoxicology, National Institute of Public Health and the Environment, Bilthoven, the Netherlands
1981-1986: Scientific advisory work on the ecotoxicological risk assessment of pesticides and new and existing chemicals, Advisory Centre Toxicology, National Institute of Public Health and Environmental Protection (RIVM), Bilthoven, the Netherlands.

Teaching and supervision

- Supervision of more than 45 PhD students working on the toxicity and bioaccumulation of organic chemicals (pesticides, PAH, chlorobenzenes, pharmaceuticals, PFAS), microplastics, nanoparticles or metals, single or in mixtures, in earthworms, springtails, isopods, oribatid mites, isopods and higher plants, on mechanisms of metal tolerance in soil invertebrates (e.g. studies on the role of metal-binding proteins and the expression of genes responsible for the induction of such proteins), or on the toxicity of metals or organic chemicals to daphnids and fish.
- Senior lecturer teaching (evolutionary) biology, ecology and (eco)toxicology in the Biology, Health and Life Sciences and Health Sciences programmes of the Faculty of Science of the Vrije Universiteit Amsterdam (1992-2026).

- Coordinator of the Module 'Ecotoxicology' of the Dutch Postgraduate Education in Toxicology programme (1993-2023).
- Guest lecturer at UNESCO-IHE, teaching environmental chemistry and ecotoxicology (2013-2020).
- Lecturer in ecotoxicology, mixture toxicity, toxicokinetics and risk assessment in national and international PhD courses.

Research projects and output

- Partner in several European projects (H2020: PAPILLONS, NanoFASE; FP7: NanoFATE; FP6: NoMiracle, AquaTerra, OSIRIS; FP5: MIXTOX, TME; FP4: SECOFASE, BIOPRINT), giving lead to work packages in NanoFATE and NoMiracle. Being involved as editor or author of books (SECOFASE, NoMiracle) or special journal issues (TME) presenting outcomes of projects.
- Partner and WP leader in the Marie-Sklodowska Curie Training Network "Best chemical risk assessment professionals for maximum Ecosystem Services benefit" (PRORISK) (2020-2024).
- Leader of the project "Scaling for bioavailability: A step towards more ecologically relevant risk assessment for in-soil organisms", paid by Syngenta (2020-2022).
- Coordinator of the NWO/TTW projects "Exposure, hazard and risk of PFAS in aquatic and terrestrial ecosystems" (2021-2026), and "Dose-response Curves for -OMICS data in soil quality assessment" (DrCOMICS) (2017-2021).
- Partner in Waterworks JPI 2015 project on microplastics "Impacts of MicroPlastics in AgroSystems and Stream Environments" (IMPASSE) (2017-2020).
- Coordinator of the project "Integrated effect-based risk management for sustainable bio-based production processes" (dRISK) of the Dutch FES funded BE-Basic programme (2014-2017).
- Leading role in NWO funded programme on System Oriented Ecotoxicology (SSEO), coordinating part of the programme and co-supervising several PhD projects (2000-2006).
- Instrumental to obtaining many grants for visiting scholars (including NWO visitor grants) and PhD students (including WOTRO and Nuffic grants) from Spain, France, Finland, China, Sri Lanka, Indonesia, Brazil, Poland, Slovenia, Portugal, Iran, etc. etc.
- Author or co-author of > 440 papers, several books and > 25 book chapters; H-index 85
- Leading author of the [Open online textbook Environmental Toxicology](#)

Research Topics and expertise:

- Research on the toxicity of organic chemicals for earthworms, springtails and higher plants in relation to bioavailability in soil;
- Development of toxicity tests with oribatid mites, springtails and earthworms;
- Development of bioassays for the assessment of the ecological risk of contaminated and remediated soils for earthworms, enchytraeids, springtails, oribatid mites and plants;
- Development of QSARs for the toxicity of organic chemicals to earthworms, springtails and higher plants;
- Toxicity and bioaccumulation of metals in earthworms, enchytraeids, springtails, oribatid mites and isopods, in relation to soil properties and other biotic and abiotic variables;
- Toxicokinetics and toxicodynamics of metals in earthworms, enchytraeids and springtails;
- Mixture toxicity of metals and pesticides in Collembola and isopods;
- Mixture toxicity of microplastics, pesticides and PFAS in Collembola;
- Toxicity and bioaccumulation of metal-based nanoparticles and microplastics in springtails, isopods, enchytraeids and earthworms;

Advisory, organizational and editorial tasks

- Several advisory tasks, e.g. on the fate and effects of pesticides, on the setting of standards for soil and water quality and on deriving criteria for soil clean-up urgency on the basis of ecotoxicological data, and within the frame-work of the Netherlands Health Council; member and vice-chair of the Dutch Advisory Group on the Risk Assessment of chemicals in air and water.
- Member and chair of the SETAC Europe Certification of Environmental Risk Assessors (CRA) programme committee (2016-2022);
- Member, representing SETAC, of the council of the International Board of Environmental Risk Assessors (IBERA) (2023-present);
- Member of the SETAC Europe council (2016-2022)
- Editor of *Environmental Toxicology and Chemistry* (2005-2010; 2017-2023);
- Editor-in-Chief of *Applied Soil Ecology* (2009-2017);
- Member of the editorial boards of *Ecotoxicology and Environmental Safety* (2004-2017), *Applied Soil Ecology* (2005-2008), *Environmental Toxicology and Chemistry* (2000-2005; 2011-2013), *Environmental Pollution* (2002-2015) and *Ecotoxicology* (1999-2016).
- Member of >90 PhD committees in the Netherlands, Belgium, Germany, UK, Spain, Portugal, Finland, Denmark, Poland, Slovenia, Italy, Estonia, Sweden, France and South Africa, Czech Republic, Australia, Canada

Other issues

- Registered toxicologist by the Dutch Toxicological Society (NvT) and the European Toxicological Society (EUROTOX) (1999-2023).
- Winner of SETAC Europe/Noack-Laboratorien Environmental Education Award 2015.
- Winner of SETAC Europe/Noack-Laboratorien Outstanding Science Career Award 2025.