

Interdisciplinary PhD Position

WildBotics DC9: “Autonomous faecal sampling to understand disease transmission in savanna ungulate communities”

We seek candidates for a PhD position based in the Department of Biology and the Centre for the Advanced Study of Collective Behaviour at the University of Konstanz in Konstanz, Germany. The position is fully funded through the WildBotics for a period of 3 years, with an additional year of funding available, for a total of **4 years**. The start date is **September 1, 2026**.

The WildBotics Network

This PhD position is part of [WildBotics](#), an EU-funded [Marie Skłodowska-Curie Doctoral Network](#) project. The network brings together 19 partner organizations across Europe and Africa to train 12 interdisciplinary Doctoral Candidates (DCs) who collaborate to develop effective and reusable robotics technologies and computer science tools for sampling and monitoring operations to support nature conservation. WildBotics is based on three themes:

- Theme 1: Robot system design for nature conservation
- Theme 2: Autonomy, perception and AI for complex natural environments
- Theme 3: Analysis of large, sample-based datasets for wildlife ecology & biodiversity conservation

This position falls under Theme 3, but the successful candidate will be expected to develop collaborations with students in Themes 1 and 2. The candidate will be expected to participate in network-wide meetings, training events and field trips hosted at WildBotics partner organizations.

The Project (DC9)

The PhD candidate will conduct research that combines field studies of individual and collective behavior of African elephants and/or mixed-species groups of ungulate herbivores in Kenya with insights from fecal datasets. There is considerable leeway for the candidate to shape the direction of the project in terms of focal species and behavioral questions. Close partnerships with the [Kenya Wildlife Research and Training Institute](#) (WRTI), the [Mara Elephant Project](#) (MEP) offer rich opportunities for collaboration on topics relating to wildlife/livestock epidemiology and African elephant conservation, among other topics.

The PhD candidate will also be expected to collaborate with other WildBotics PhD students (e.g. [DC1 and DC3](#)) to support the development of aerial & terrestrial robotics systems for fecal sample collection in complex field settings, e.g. by building image datasets to enable detection of defecation events and fecal samples.

The project will be supervised by Prof. Dr. Iain Couzin in collaboration with Dr. Blair Costelloe.

We offer

The successful candidate will become part of the WildBotics Doctoral Network and the dynamic, interdisciplinary community at the University of Konstanz. The University's close ties to the Max Planck Institute of Animal Behavior offer further opportunities for integration into a rich, international research community. The candidate will have the option of enrolling in the International Max Planck Research School for Quantitative Behavior, Ecology & Evolution ([IMPRS-QBEE](#)). WildBotics funding provides salary for the position as well as funding to support research and training expenses, including participation in WildBotics network events.

Your qualifications

We seek a curious and motivated candidate with research interests in animal behavioral ecology, collective dynamics, disease ecology, wildlife conservation, or related areas. Candidates should demonstrate strong research potential (e.g. via high-quality MSc thesis, publications, code repositories, conference presentations, or outreach activities). Strong quantitative literacy, including programming skills and experience working with large and complex datasets, is advantageous. Candidates must be willing to undertake fieldwork in Kenya independently and travel to WildBotics partner institutions for project events and secondments. Good organizational

and communication skills, ability to work independently and as part of a team, and enthusiasm for interdisciplinary collaboration are essential.

While **not required**, skills or experience in the following areas may be advantageous:

- Ecological or behavioral fieldwork
- Computer vision
- Machine learning
- Statistical and/or ecological modeling, or analysis of large behavioral datasets
- Collection and/or processing of fecal or other biological samples
- Experience working in international or interdisciplinary settings
- Valid drivers license

Note that we do not expect candidates to meet all of the required and preferred qualifications. We encourage applications from candidates who meet only some of these qualifications.

The position is open to students of **any nationality**. Eligible candidates must be **Early-Stage Researchers** under MSCA-DN rules (i.e., cannot already have PhD and must have <4 years full time equivalent (FTE) research experience since obtaining their Masters). Candidates must also comply with the **MSCA mobility rule**, which requires that candidates cannot have spent more than 12 months of the 36 months prior to the start of the position residing or conducting their main activity (work, studies, etc.) in Germany. While an MSc degree is not strictly required, candidates without an MSc are admissible only in exceptional cases; [please see here](#) for further details on degree requirements.

The working language of the position is English. English proficiency, including verbal skills and scientific writing skills, is required. German language skills are not required.

How to apply

Application materials should be sent by email to Dr. Blair Costelloe (blair.costelloe@uni-konstanz.de). Please include “**WildBotics DC09 application**” in the subject line. Applications will be reviewed on a rolling basis until the position is filled. All applications received prior to **June 1, 2026** are guaranteed full consideration.

Please include the following documents:

- A letter of motivation (max. 3 pages) that addresses the following points:
 - Your background and experiences as they relate to the position qualifications
 - Your motivation for the WildBotics project in general
 - Your motivation for this project (DC9)
 - A brief summary of your research interests as they relate to the project
- CV or resume
- Transcripts/certificates for your Bachelors and MSc (can be unofficial at this stage – official records will be required before acceptance)
- Scientific writing sample (e.g. publication or thesis chapter)
- Names and contact information for 2-3 professional references, whom we will contact if necessary. Please specify your relationship to each reference.
- A statement confirming that you are in compliance with the MSCA mobility rule, which states that candidates cannot have spent more than 12 months of the 36 months prior to the start of the position residing or conducting their main activity (work, studies, etc.) in Germany.

Questions about this position should be addressed to **Dr. Blair Costelloe**, blair.costelloe@uni-konstanz.de.