The Leibniz-Centre for Agricultural Landscape Research (ZALF) e.V. Müncheberg seeks to fill the following position:

**PhD Position (m/f)**

[Reference No 18 - 2018]

beginning on October 1st, 2018

ZALF is a member of the Leibniz Association and, with its 350 employees, one of the largest research institutions in the Berlin-Brandenburg region. It is our mission to scientifically explain causal relationships in agricultural landscapes and to provide society with sound information for the sustainable use of agricultural landscapes through excellent research. ZALF strongly focuses on interdisciplinary collaboration.

**Background**

For our Project “Arthropods as mobile linker for fungal spore dispersal - linking species behaviour and movement patterns with disease spread mechanisms” we are looking for a skilled PhD candidate to support our team. The project is associated to BioMove, a Research Training Group (RTG) funded by the German Research Foundation DFG (for more details see: www.biomove.org).

Up to now, only few studies have investigated the interaction of arthropods on Fusarium Head Blight (FHB) disease in small-grained cereals. Arthropods are known to move between semi-natural and agricultural habitats and providing numerous functional links this way, e.g. like pest control. Here we are investigating the spatial and temporal spread of disease vectors using the movement patterns of arthropods. Numerous arthropods are potential vectors of FHB disease pathogens, their evidence might vary between species and taxa depending on their traits. There is a need for an integrated approach, including arthropod behaviour, movement patterns and mechanisms for crop infection as promoted by arthropod mediated vectors. The focus of the research and the dissertation will be the mobile links connecting different kinds of habitat patches, thereby affecting biodiversity. This project analyses, how specific landscape-conditions (availability and spatial distribution of habitats and resources) affect the amount and frequency of mobile links between carabid occurrence and fungal spore dispersal.

**Your tasks:**

- to quantify the functional interactions between agricultural fields and their neighbouring semi-natural habitats regarding carabid movement and FHB dispersal/control (field experiments)
- to identify the drivers for the fungal diseases (arthropod traits and dispersal potential)
- to estimate the variation in spore/mycotoxin uptake between various arthropods species/taxa (exposition experiments)
to investigate the fungal vectors on the carabids body and gut and the variation in pathogen infections between carabid groups (lab experiments)

Your profile:
- Excellent Master's Degree in Ecology or related discipline, with a focus in invertebrate taxonomy, Landscape- and Behavioral Ecology
- Experiences in capturing and species identification of carabids
- Experiences in applying advanced statistical methods
- Knowledge in microbiological and/or molecular-genetic methods
- Experiences in presenting and publishing research findings are desirable
- Fluency in spoken and written German and English is required

We offer:
- High level interdisciplinary research in a research centre close to Berlin
- Being part of a research group which enjoys an excellent reputation within Germany as well as internationally
- Excellent links to national and international research networks
- Support and optimal training courses in the ZALF as well as in the BioMove RTG study programs

Your application should enclose:
- CV and letter of motivation
- Contact details of two potential referees

For further information please contact Dr. Marina Müller (mmueller@zalf.de) or Dr. Michael Glemnitz (mglemnitz@zalf.de) or check the following link: http://www.zalf.de/de/struktur/pb1/Seiten/default.aspx

Place of work is Müncheberg (close to Berlin, commuting is possible). Salary will follow the guidelines for public employees according to the TV-L, level 13 TV-L. The position is foreseen as 65% of the regular weekly working time and max. fixed-term for 3 years.

Physically handicapped persons will be favoured if equally qualified. In order to increase the number of female employees, we ask interested and qualified women to apply for the position.

Please refer to reference number 0../2018 in your application and send it by email (1 pdf document, 5MB max,) to: bewerbungen@zalf.de, Frau Hamann, personnel office, Leibniz-Centre for Agricultural Landscape Research (ZALF) e.V. Closing date for receiving applications is 1st June 2018.