For our new Collaborative Research Center on "Plant Ecological Genetics" the Institute for Plant Genetics at the Faculty of Mathematics and Natural Sciences of Heinrich Heine University (HHU) Düsseldorf invites applications for a

Adaptation to Changing Environments in Grasses: Bridging Ecology and Genetics
PhD Position(w/m/d) (65 %, EG 13 TV-L):

to be filled as soon as possible

SFB/TRR341 „Plant Ecological Genetics"

The Collaborative Research Center TRR341 "Plant Ecological Genetics" (https://trr341.uni-koeln.de/) is funded by the German Research Foundation (DFG) at the Universities of Cologne, Düsseldorf, Bochum, Marburg and the Max Planck Institute for Plant Breeding Research. In a joint and interdisciplinary approach, combining Plant Genetics/Genomics and Ecology, we are investigating plant responses and adaptation to global environmental change and their genetic underpinnings.

Within the TRR341 we are looking for a PhD candidate to decipher the ecological and genetic adaptation to changing environments in the grass species *Hordeum murinum.* We aim to establish *H. murinum* as a model to decipher local adaptation and range expansion in a joint project between the von Korff lab (https://www.pflanzengenetik.hhu.de/en/) and the Bucharova lab (https://www.uni-marburg.de/en/fb17/disciplines/conservation/conservation-biology-group).

What are your tasks:

- Conduct common garden experiments to score phenotypic differences between different *H. murinum* populations under water and nutrient limitations.
- Support *in situ* sampling and scoring of wild *Hordeum* populations
- Identify intraspecific trait and genetic variation underlying the ecological diversification, local adaptation, and differences in geographic range of a wild *Hordeum* species
- Apply statistical and computational tools for the analysis of trait, environmental and high-density genetic marker data (NGS-data)
- Present and publish research results in conferences and scientific journals

What do we expect

- MSc degree in the field of plant biology, ecology, evolutionary or population genetics, ecological genetics, quantitative biology, plant breeding or a comparable discipline
- Interest in plant genetic ecology, quantitative and evolutionary biology methods and concepts
- Experience in the use of statistical methods and programming languages (e.g. R, Java, Python) is desirable
- Good oral and written communication skills in English

We offer you

- A unique and interdisciplinary research network in the field of Plant Ecological Genetics (TRR 341) that bundles the expertise of excellent scientists from five different research institutions.
- comprehensive training program with targeted scientific education in the field of Plant Ecological Genetics as well as complementary training supporting your personal and career development.
- Family-friendly working environment

If you have further questions on the project or position, please contact Prof. Maria von Korff Schmising (maria.korff.schmising@hhu.de).
Qualified candidates should send their application (cover letter, CV, publication list, contact info of two references, Bachelor and MSc certificates) by e-mail (one single pdf-file) until **31.3.2023** to maria.korff.schmising@hhu.de.