

Announcement for a Master's thesis on

Nutritional characterization of underutilized edible plant species from Turkana, Kenya

in the framework of the project

“Improving dietary quality and livelihoods using farm and wild biodiversity through an integrated community-based approach in Ethiopia and Kenya”

led by Bioversity International, Nairobi, Kenya in collaboration with Georg-August-Universität Göttingen.

Background

The project proposes an integrated community-based approach involving communities, extension workers, NGOs, policymakers and researchers to improve use and benefits of seasonally available biodiverse cultivated and wild nutritious foods. The **project goal** is to empower communities to make better use of the potential of seasonally-available biodiverse nutritious foods to contribute to improved farm resilience, food and nutrition security and incomes in Tigray Region in Ethiopia and Turkana County in Kenya.

Responsibilities/research tasks

In consultation with the supervisors in Göttingen and at Bioversity, the master student will

- **Conduct laboratory analysis with 10 plant species** that will be sent (freeze-dried) from Kenya to Göttingen including mineral analysis using ICP, determination of tannin content using titration method, beta-carotene and organic acid analysis by HPLC, folic acid by microbiological assay among others
- **Possibly cultivating 2-3 of the plant species** (vegetables) in the green house for leaf mass for further laboratory analysis, e.g. determination of vitamin C
- **Work within an international project** and actively cooperate and communicate with the other team members in Göttingen, Hohenheim, Bonn and Kenya as appropriate

Main research questions are

- What are the levels of major nutrients in the 10 selected underutilised edible plant species (raw fresh or freeze-dried samples, three repetitions) from Turkana, Kenya?
- What are differences in nutrient content when compared to other/ similar plant species consumed in Kenya and which of the 10 plant species could contribute in particular to the uptake of critical nutrients in the study region?

Educational qualifications, skills and experience

- At least 2 semester master studies in agricultural sciences or related fields
- At least basic knowledge and high interest in laboratory work
- Good command of English as the thesis has to be written in English
- Team player; willingness to assume responsibility and work on own initiative
- Interest in development-oriented research in agriculture and nutrition

Preferred timeline

Start in **March 2020 or later**

In cooperation with:

Contact:

Dr. Gudrun Keding, gkeding@gwdg.de, 0551 – 39-8143

Alliance