

I recommend **students** to do what they really like and what they are **enthusiastic** about. You should never study just because others expect you to do this.



**Name:**

Tim Kutscher

**Job title:**

Botanist at the University Bonn, Germany

**Career:**

- Left school when he was 18 years old without graduating
- Voluntary Ecological Year (Freiwilliges ökologisches Jahr - FöJ); University of Vechta; Institute for Nature Conservation and Environmental Education; Tasks: Laboratory work (e.g., analyses of water and soil samples), assistance in the herbarium, vegetation studies, voluntary participation in plant identification courses
- Bonn Botanic Gardens (University of Bonn); Formal apprenticeship as a horticulturist for ornamental plants; Main area of work: Tropical conservatory and geophytes collection; Voluntary participation in plant identification courses and lectures on “Systematic of flowering plants” and “Vegetation of the Earth”, also participated in a botanical field trip to Georgia; Final examination in January 2009 (i.e. 6 months earlier than in regular apprenticeship)
- Peter-Lenné-Schule Berlin; Technical Secondary School with focus on Agriculture and Horticulture; Graduation: Allgemeine Fachhochschulreife (General entrance qualification for universities of applied sciences)
- University for Sustainable Development, Eberswalde; Studies in Landscape Management and Nature Conservation, with focus on botany, ecology and insects; Bachelor’s project (starting in March 2013) on “Diversity of vascular epiphytes along a gradient of anthropogenic degradation in lowland rainforests of Sumatra (Indonesia)”
- Rheinische Friedrich-Wilhelms-Universität Bonn (Bonn University); Master program „Plant Sciences” with focus on plant Diversity and Systematics; Master project “Forest Biogeography in Northern Peru”
- Since 2016 PhD student at the Nees Institute for Biodiversity of Plants (University Bonn); Atacama Project (CRC 1211; <http://sfb1211.uni-koeln.de/>)

**Responsibilities:**

As PhD student with an own project he primarily has to...

- prepare and organize journeys for field studies
- manage botanic collections (like dried plant components)
- laboratory work
- data analysis at the computer/bioinformatics



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**Essential skills in my job:**

- Teamwork skills
- Understanding of coherences
- Autonomous acquisition of new knowledge
- Plant identification and observation skills
- Body fitness to cope with weeks or sometimes month of intense fieldwork
- Enthusiasm and interest for organismic biology (e.g. the diversity of living beings and their relationships to each other)

**What I need to know in my job:**

- Advanced fundamentals in botany, biogeography & evolution
- Fundamentals in climatology, geology & geomorphology
- Fundamentals in informatics & bioinformatics

**The most interesting part of my job:**

- The diversity of tasks!
- The preparation and implementation of field work in the tropics and subtropics
- The possibility to travel to places you would never experience as a tourist
- The work in the laboratory and at the computer
- The analysis and interpretation of the studies findings
- The cooperation and exchange with experts from all over the world

**Job perspective:**

After his PhD, he can...

- Work as a scientist at universities and other research institutes
- Work as a curator (management position) in a botanic garden, museum or a herbarium
- Work as a freelance consultant (e.g. in a planning office)





### Botanist Tim Kutscher, University of Bonn

My name is Tim and I work as a botanist at the University Bonn. I'm currently working on my dissertation and have my own research project about plants in the Atacama Desert in South America.

When I was still at school, it was not taken for granted that I would become a scientist at the University of Bonn. School never addressed the things I was really interested in, so I had real difficulties to be successful. I left school when I was 18 years old without graduating. I started a voluntary ecological year at the University of Vechta at the Institute of Nature Conservation and Environmental Education. This was a time when I found out about my abilities in practical and scientific work. For example I did a lot of analyses of water or soil samples and participated in voluntary plant identification courses. This was the reason why I started the formal apprenticeship as a horticulturist for ornamental plants in the Botanic Gardens in Bonn afterwards. Besides participating in plant identification courses and lectures on "Systematic of flowering plants" and "Vegetation of the Earth", I also participated in a botanical field trip to Georgia for example. Later I passed my final exam 6 months earlier than in regular apprenticeships. After that, I graduated at a Technical Secondary School with focus on agriculture and horticulture and achieved the general entrance qualification for universities of applied sciences. I studied Landscape Management and Nature Conservation, with focus on botany, ecology and insects at the University for Sustainable Development in Eberswalde afterwards. Following this, I did a master's program in Plant Sciences with focus on plant diversity and systematics at the University of Bonn and since 2016 I'm working as a PhD student at the Nees Institute for Biodiversity of Plants at the University of Bonn. You see: all's well that ends well – even for people like me (and others) who experienced difficulties at school.

As a PhD student with an own project, I primary have to prepare and organize journeys for field studies, manage botanic collections (like dried plant components), do work at our laboratories and data analysis at the computer (bioinformatics).

The essentials skills I need in my job are teamwork skills, plant identification and observation skills. A good understanding of coherences and the acquisition of new knowledge autonomously are also important. For my work (especially the fieldwork), it is very helpful to have a good body fitness, to cope with weeks or sometimes month of intense fieldwork (e.g. collecting plants or doing measuring in deserts or the tropics). Not forgetting the importance of being really enthusiastic about organismic biology (e.g. the diversity of living beings and their relationships to each other).

In my job I need to know at least the fundamentals in climatology, geology and geomorphology, as well as in informatics and bioinformatics. Advanced fundamentals in botany, biogeography and evolution are also necessary.

The most interesting part of my job is the high diversity of tasks. I like the preparation and realization of fieldwork in the tropics and subtropics but also the work in the laboratory and at the computer. Moreover, the analysis and interpretation of the studies findings and the cooperation and exchange with experts from all over the world is really interesting and challenging.

After my PhD, I can work as a scientist at universities and other research institutes but also as a curator (management position) in a botanic garden, museum or an herbarium. Working as a freelance consultant (e.g. in a planning office) is an option, too. I'm curious how my professional future will look like.