

**Applied Sciences for Life** – in this sense, the Weihenstephan-Triesdorf University of Applied Sciences has a unique range of subjects covering all aspects of life. Over 700 staff and 156 professors are employed at four locations (Freising, Triesdorf, Straubing, Schlachters) and work together towards a sustainable future.

The following part-time position (65%) is available at the Peatland Science Center, Campus Weihenstephan (Freising):

**PhD student (m/f/d)**  
**Reference number M835-PSC**

The position is limited until July 31, 2028, with the possibility of an extension until December 31, 2028.

Peatlands are significant sources of greenhouse gas emissions in Germany and contributed 7.1% of total national emissions in 2022. Paludiculture is a promising nature-based solution for mitigating climate change and offers high potential for CO<sub>2</sub> sequestration. However, the long-term sustainability and climate resilience of these systems are still poorly understood. The PhD position is part of the DFG-funded project "Carbon cycling in different fen paludicultures - Short and long-term stability of sequestered C under different future groundwater level scenarios (CaCyPal)". The aim of the project is to determine the fate of the newly sequestered atmospheric CO<sub>2</sub> carbon in the different carbon pools and to investigate the stability and potential risk of remobilisation of the recently sequestered carbon under constant wet versus climate change-induced droughts for three different paludiculture species. The aim is to quantify plant CO<sub>2</sub> uptake, carbon transfer and carbon metabolism in the plant-soil-atmosphere continuum under field conditions over different time scales.

To achieve this, three different paludiculture species will be labelled with <sup>13</sup>C-enriched CO<sub>2</sub>. The work programme includes four main experiments to investigate the effects on the short- to long-term stability of sequestered CO<sub>2</sub> carbon in different paludiculture species. All field experiments will be conducted at a fully equipped, permanent research site of the HSWT-PSC. For high-frequency measurements of greenhouse gases as well as high-precision δ<sup>13</sup>C analyses in CO<sub>2</sub> and CH<sub>4</sub>, a novel robotic chamber measurement system will be used. In addition to GHG and isotopic measurements, samples of plant biomass, DOC, dissolved CO<sub>2</sub> and CH<sub>4</sub>, SOC, C<sub>mic</sub> and biochemical fractions of plant biomass and soil are analysed for δ<sup>13</sup>C isotopic signatures. The project is carried out in close cooperation with the Thünen-Institute for Climate-Smart Agriculture in Braunschweig. The position includes a total of four and a half months of research stay at the Thünen-Institute, distributed over the duration of the project. The position serves as a scientific qualification and offers the opportunity for a doctorate within the project. A team of technical staff and volunteers will support the work.

**Your area of responsibility:**

- Monitoring and control of automated greenhouse gas measurements between biosphere and atmosphere using a robotic chamber measuring system
- Conducting the <sup>13</sup>CO<sub>2</sub> pulse labeling
- Measuring soil, vegetation and meteorological control factors
- Laboratory work for the analyses to determine the δ<sup>13</sup>C isotope signatures in various components
- Preparation of input data, quality assurance and data processing
- Data analysis, modeling of annual greenhouse gas balances and calculation of isotopic signatures and mass balances
- Writing scientific publications and contributing to project reports
- Presentation of results at national and international conferences

**Your profile:**

- In-depth expertise in the fields of biogeochemistry, soil science and ecology
- Experience with peatland ecosystems and in the measurement of greenhouse gases or stable isotopes is an advantage

- Confident handling of common IT applications and sound knowledge of the programming language R
- Knowledge of standardised laboratory procedures for soil and vegetation studies is beneficial
- Experience with multivariate statistical analysis and modelling is an advantage
- Willingness to carry out physically demanding field work as part of regular field campaigns
- Team spirit, flexibility, high motivation and enjoyment of scientific work
- Willingness to learn new methods, technical skills and the ability to work independently
- A keen interest in scientific research and the intention to pursue a doctoral thesis
- excellent knowledge of English and sufficient knowledge of German or at least a willingness to learn German
- Class B driving licence

#### **Recruitment requirements:**

You have a university degree (diploma [university] or master's degree) in geocology, landscape ecology, meteorology, climate sciences, agricultural sciences, environmental sciences, soil sciences or a comparable field of study.

#### **We offer you:**

- fair pay in accordance with the collective agreement for the public service of the federal states (TV-L) with regular collectively agreed salary increases
- Allowance if you live in the Munich area, capital-forming benefits, annual special payment, company pension scheme
- Opportunities for further education and training (BayLern, language courses, individual seminars)
- Attractive fringe benefits such as canteen discount for staff, JobBike Bayern
- Free car parking and free charging of electric vehicles
- Company outings, team events, parties and events
- 30 days' holiday with a 5-day week, plus Christmas Eve and New Year's Eve off work
- Health management: mental health coaching, university sports, exercise breaks and much more
- Family-friendly working environment with flexible working hours (part-time, flexitime within the framework time)

Further [HSWT benefits](#) for staff

#### **Notes:**

The position is to be filled on January 1, 2026. Payment will be made in accordance with the provisions of collective bargaining law, subject to fulfilment of the personal and collective bargaining requirements up to pay group 13 TV-L.

Severely disabled persons will be given preferential treatment if their aptitude, qualifications and professional performance are otherwise essentially equal. Please indicate any severe disability or equivalent status in your application, if applicable. We welcome applications from all genders.

#### **Would you like to become part of our team?**

If you fulfil the requirements, we look forward to receiving your application via our online form below. Please apply with a cover letter, a CV in tabular form, professional or academic qualifications and qualified references. Please note that we only fill our vacancies on the basis of suitability, performance and aptitude; we can therefore only consider you in the further process if you provide us with evidence of this.

Foreign professional qualifications/foreign university degrees can only be considered if you can provide proof of equivalence/recognition. You can find the office responsible for this via the "[Recognition in Germany](#)" portal.

Please apply exclusively via the "APPLY NOW" button ([Online form](#)) by **October 1, 2025 at the latest**. Applications sent by mail or email will not be considered.

**For further information, please contact:**

Weihenstephan-Triesdorf University of Applied Sciences (HSWT), Am Hofgarten 4, 85354 Freising

**for questions regarding the application process or recruitment:**

Email: [stellenausschreibung@hswt.de](mailto:stellenausschreibung@hswt.de)

**for technical questions:**

Dr. Tim Eickenscheidt

Phone: +49 8161 71-6266

Email: [tim.eickenscheidt@hswt.de](mailto:tim.eickenscheidt@hswt.de)

Dr. Caroline Buchen-Tschiskale (Thünen-Institut)

Email: [caroline.buchen-tschiskale@thuenen.de](mailto:caroline.buchen-tschiskale@thuenen.de)

**for issues relating to severely disabled persons and persons with equivalent status:**

Email: [schwerbehindertenvertretung@hswt.de](mailto:schwerbehindertenvertretung@hswt.de)



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