



Fakulta rybnářství
a ochrany vod
Faculty of Fisheries
and Protection
of Waters

Jihočeská univerzita
v Českých Budějovicích
University of South Bohemia
in České Budějovice
Czech Republic



HR EXCELLENCE IN RESEARCH

Laboratory of Nutrition as part of the **Faculty of Fisheries and Protection of Waters** (<https://www.frov.jcu.cz/en/>) at the **University of South Bohemia** (<https://www.jcu.cz/en/>), České Budějovice, Czech Republic.

Opening for an internship or thesis in the field of analytical chemistry

Project: Assessing the fate and behavior of compounds commonly used for digestibility studies in animals

Background:

Digestibility studies are an essential part of research in the field of animal nutrition. Here, a feed ration is fed to the experimental animals and the excreted feces collected. From the analysis of feed and feces, it is eventually possible to determine to what extent certain feed components were retained by the fed species. However, it can be challenging to collect the entire quantity of feces that is excreted from feeding a specific amount of feed. In order to still be able to relate after and feces in such cases, digestibility markers are in use since decades (Schneider & Flatt, 1975).

Interestingly, studies related to the fate of digestibility markers in the digestive tract of fish species are limited in the choice of species and the methodological approach (Austreng, Storebakken, Thomassen, Refstie, & Thomassen, 2000).

The job:

During your stay, you will help to develop a method to determine the solubilization of commonly used digestibility markers under physiological conditions. You will expose the markers to different time-restricted conditions that resemble the different sections of the digestive tract and assess the change in particle size using laser diffraction measurements.

Depending on the duration of the stay, this topic might be expanded by additional aspects and thus suitable for a thesis. Interested applicants may contact the topic supervisor for further information.

What we are looking for:

We are looking for a student of analytical chemistry or related fields, or a keen learner, who can quickly comprehend, is an analytical thinker, flexible, and has a strong interest in applying knowledge to real-life problems.

Ideally, you would stay with us for at least two months. Proficiency in English is a must, as the working language in our team is English. We welcome international students to our multinational team and encourage your application.



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What we offer:

The Institute of Aquaculture and Protection of Waters combines a young team with state-of-the-art research in the field of aquaculture. As a student, you will be involved in all activities of the Laboratory of Nutrition and receive individual mentorship throughout your stay. We as a team will try our best to let you benefit from your work not only through getting rid of an obligation such as a thesis but also in the form of a scientific publication, if possible.

Foreign students from EU countries are, for instance, eligible for an “Erasmus+” grant that covers personal expenses. Affordable accommodation can be arranged in one of the student dorms on campus.

Interested students shall send their CV and a short motivation letter to Dr. Anil Tellbüscher. We will fill the position at our earliest convenience.

Contact information:

Anil Axel Tellbüscher, Ph.D.
atellbuscher@frov.jcu.cz

References:

- Austreng, E., Storebakken, T., Thomassen, M. S., Refstie, S., & Thomassen, Y. (2000). Evaluation of selected trivalent metal oxides as inert markers used to estimate apparent digestibility in salmonids. *Aquaculture*, 188(1–2), 65–78–65–78.
- Schneider, B. H., & Flatt, W. P. (1975). *The Evaluation of Feeds through Digestibility Experiments*. Athens, USA: University of Georgia Press.