



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: Establishing a method for the determination of Biochemical Oxygen Demand (BOD) in water samples from recirculation aquaculture systems

Background:

One of the main parameters that determines the cost of water treatment is oxygen, which is added either through aeration with compressed air or in form of liquid oxygen. In biological water treatment processes, aerobic microorganisms use O_2 as electron acceptor to gain energy through the metabolization of NH_4^+ to NO_3^- and organic carbon to CO_2 . The quantity of oxygen required for the described microbial processes is called the Biochemical Oxygen Demand (BOD). BOD is proportional to the quantity of compounds in solution that can be oxidized by microorganisms.

The job:

During your stay, your tasks will comprise the establishment of BOD determination according to APHA 5210 and comparison of results from the classic dilution method with those from the manometric method.

It is possible to expand the work to a thesis with the aim to establish a relationship between BOD and TOC (Total Organic Carbon).

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. As BOD determinations are time-consuming (5 days per assay), you would ideally 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.

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.



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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 Anil Tellbüscher. We will fill the position at our earliest convenience.

Contact information:

Anil Axel Tellbüscher, Ph.D.

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References: