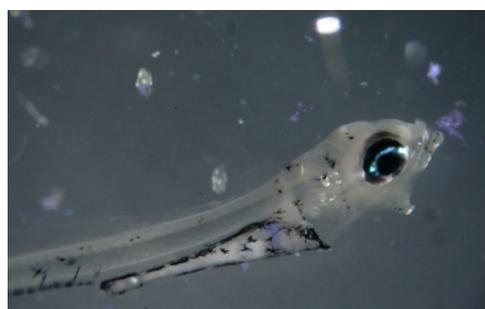


Recycling nutrients from agricultural and industrial wastes through the cultivation of microalgae for the production of fish feed

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| Project name | Recycling nutrients from agricultural and industrial wastes through the cultivation of microalgae for the production of fish feed |
| Registration number | ATCZ221, Algae4Fish |
| Realization date | 01/01/2020 — 31/12/2022 |
| Recipient | University of South Bohemia in České Budějovice – FFPW USB |
| Other recipients | Institute of Microbiology ASCR –Centrum Algatech BEST GmbH. Bundesamt für Wasserwirtschaft |
| Grant program | Interreg V-A program Austria-Czech Republic, European Regional Development Fund |
| Responsible solver | MSc. Carlos Yanes Roca, Ph. |

PROJECT ANNOTATION, GOALS

The Algae4Fish project is focused on increasing the success of larval breeding of the valuable predatory fish, Zander (also known as yellow pikeperch, *Sander lucioperca*). It is accomplished through a newly designed feeding procedure for zander larvae, which uses the natural food chain and all its components – phytoplankton (microalgae) – zooplankton (rotifers). The added eco-innovation value is the use of wastewater sources. The aim of the project is to obtain healthy larvae of the valuable predatory fish – pikeperch. This can be achieved in an innovative way by feeding the fish at a very early stage of development where we can positively influence the health status and percentage of larvae survival via the food chain. The key prey of the fry are live rotifers, a microscopic zooplankton, the size of which is more suitable for the small mouths of pikeperch fry than the crustacean *Artemia* which is standardly used. In order to guarantee the necessary supply of nutrients required for the healthy development of pikeperch at an early stage of development, we also focus on microalgae, the feed of the rotifers. Selected species of microalgae rich in essential amino acids, fatty acids, proteins, and enzymes that are all needed for the development of fish tissues and overall health are used. In this way, the rate of larvae survival significantly increases in the first weeks of life. Microalgae lay at the bottom of the described food chain. Nutrients, especially nitrogen, phosphorus, and carbon, are needed for their growth. These are abundant in some wastewaters. The exploitation of these resources is a part of this technology. The project's output is a device prototype for the cultivation of microalgae and the breeding of rotifers, which is tested in hatcheries and breeding farms of pikeperch larvae and juvenile fish in the Czech Republic and Austria.



PROJECT BUDGET

Budget ERDF 678,642.55 €

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