Dear EuroShrimp Community,

we would like to draw your attention to a <u>questionnaire</u> on shrimp welfare and RAS system management related to the shrimp farming in recirculating aquaculture systems.

According to the Animal Welfare Act, species-appropriate husbandry must be ensured, through internal controls, in animals kept for commercial purposes. The animal owner must collect and evaluates suitable, species-related animal welfare indicators for his assessment. Although regulations do not yet apply to crustaceans, an expansion is expected shortly. However, the effect of chronic stress on crustaceans' welfare and health has not been examined yet.

The Crustawohl project, led by Dipl. Bio. <u>Mirko Bögner</u> and M.Sc. <u>Paolo Gamberoni</u>, focuses on welfare to optimize whiteleg shrimp (*Litopaeneus vannamei*) farming in RAS systems. Chronic stress is investigated to discover some reliable markers. Stress experiments based on stocking density, nitrates exposition and exuviae removal will be carried out at the Centre for Aquaculture of the Alfred-Wegener-Institute.

The findings will be tested in the project partner's OCEANLOOP farm, at a larger scale environment. The project implies a wide range of analyses in the field of health observation, histology, physiology, genomics and shrimp behaviour. Due to the holistic approach, the evaluation system to be developed could provide a high degree of meaningfulness, resulting in more convincing communication with consumers. The final goal is to produce the first shrimp welfare index, that farmers might use as a reference to the early recognition of anomalous conditions.

In order to calibrate, orientate our experiments and enrich the aquaculture systems management analysis we gently ask you to fill out the shrimp expert's <u>questionnaire</u>. Please follow this <u>link</u> to find out more about the project or get in contact with <u>Paolo</u> if you have further questions.

DATA WILL BE HANDLED ANONYMOUSLY AND STORED IN ACCORDANCE WITH GDPR RULES. THE QUESTIONNAIRE IS EXPECTED TO TAKE AROUND 10-15 MINUTES.

Thank you very much for your contribution!

Kind wishes and all the best from The EuroShrimp Team.

P.S.: Please feel free to get in contact if you have any news, questions or information you would like to share via the EuroShrimp network. You contact us via the euroshrimp@awi.de