FISH BEHAVIOURAL STUDIES TO ASSURE BETTER FARMED FISH WELFARE

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On-farm conditions directly influence fish behaviour. When assessing aquatic animals' welfare standards, behaviour is one of the critical aspects to consider. This presentation will briefly describe a general view of Spanish aquaculture, some of the farmed fish's most frequent behaviours (e.g., aggressiveness, appetite, distribution, gill ventilation frequency, swimming activity, etc.), and how scientific studies are needed to cover fish welfare. A literature review was conducted on fish behaviour and farmed fish welfare parameters. Scientific articles, guidelines, reports, and certification standards were analyzed. Also, current collaborations with other animal welfare organizations provided valuable information to learn about various finfish species, rearing systems and conditions in aquaculture in different EU Member States and third countries. In 2019, the estimated global number of farmed finfish destined for consumption was 124.000 M, equivalent to 15.5 times the human population worldwide. According to Mendeley, only 1.25% (173 out of 13,798) of the scientific articles published between 2018-2023 were dedicated to studying their behaviour. However, most resources are usually allocated to salmon and rainbow trout, leaving other frequently farmed species in Spain aside (i.e.seabass, seabream, tuna, and turbot). For instance, farmed seabass (23,924 tonnes), rainbow trout (15,357 tonnes) and seabream (9,632 tonnes) were the top 3 fish produced in 2021. There are scientific knowledge gaps on farmed fish welfare. Therefore, assigning more resources to research projects focused on this topic is essential. In particular, to the species raised in the Mediterranean, such as European seabass (D. labrax) and gilthead seabream (S. aurata). On the other hand, it is vital to approach welfare positively, identifying behaviours that can be encouraged in existing aquaculture rearing systems, e.g., favoring natural fish behaviours through environmental enrichment.