



New Tools to Improve Fish Health and Environment in Organic Aquacultur

Jokumsen, Alfred; Gesto, Manuel; Buchmann, K.; Lorenzen, Niels; Pedersen, Lars-Flemming; Henriksen, N. H.; Schmidt, Jacob Günther; Madsen, Lone; Kania, Per; Pedersen, Per Bovbjerg

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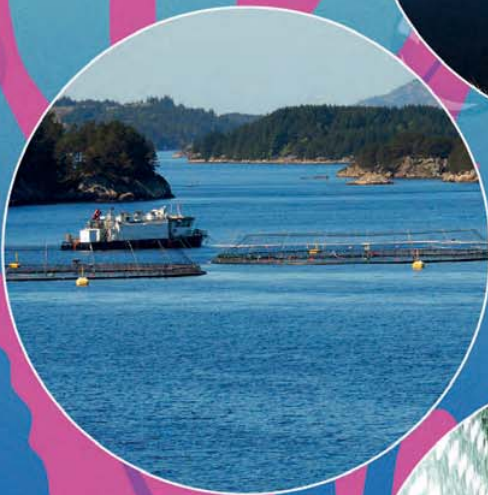
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SHELTERFISH NEW TOOLS TO IMPROVE FISH HEALTH AND ENVIRONMENT IN ORGANIC AQUACULTURE

A. Jokumsen¹, M. Gesto¹, K. Buchmann², N. Lorenzen³, L.-F. Pedersen¹, N.H. Henriksen⁴, J.G. Schmidt³,
L. Madsen³, P. Kania² and P.B. Pedersen¹

1. Technical University of Denmark, DTU Aqua, The North Sea Science Park, DK-9850 Hirtshals, Denmark
 2. University of Copenhagen, Institute for Veterinary and Animal Sciences, DK-1870 Frederiksberg C, Denmark
 3. Technical University of Denmark, DTU Aqua, Kemitorvet, DK-2800 Kgs. Lyngby, Denmark
 4. The Danish Aquaculture Organisation, Agro Food Park 15, DK-8200 Aarhus N, Denmark
- E-mail: ajo@aqua.dtu.dk

Rainbow trout farming and in particular organic rainbow trout farms are critically challenged by the relatively high prevalence of skin/gill infections caused by various pathogens, especially the parasite *Costia* (*Ichthyobodo necator*) and amoebae, which are ultimately lethal for fry/smaller fish. In addition, a *Midichloria*-like bacterium causes the non-lethal skin disease Red Mark Syndrome (RMS), which results in downgrading/rejection of up to 30% of the fish when placed on the market. Treatment by use of antibiotics/parasitics/ auxiliary compounds is only possible to a limited extent in organic trout production. Hence, solutions to prevent and/or treat costia, amoebae and RMS are urgently needed, not only to secure production of organic rainbow trout in Denmark, but also enable a larger and more cost efficient production with high animal welfare and minimal environmental impact.

ShelterFish will focus on solutions addressing the interactions between fish - pathogens – farming environment and water quality; including 1) Test of artificial shelters (shade) to enrich environmental conditions and lower stress; 2) Test of biological herb extracts and a new bacterial surfactant to minimize gill/skin parasite infections; 3) Test of induced immunity to Red Mark Syndrome (RMS) by early exposure; and 4) Test of tools to reduce organic matter load in organic trout farms and hereby improve water quality, fish health/welfare