

# BESTBROOD

## Identification of broodstock performance indicators and markers to boost the aquaculture of emerging fish species

### About the project

Appropriate broodstock management is essential for supporting reproductive function and reliable and consistent production of gametes and high-quality eggs, critical for the rapid increase in juveniles supply and turn aquaculture into a profitable industry. In all species commercialized to date, this has been the first significant challenge to overcome and it is still so for many emerging species. The BESTBROOD project aims to build upon state-of-the-art from previous EU and National projects and, evolve biotechnologies that significantly improve broodstock management methods and enhance reproductive performance of selected emerging species (Senegalese sole, greater amberjack, spotted wolffish and lumpfish). All these species are in an early commercial stage, but all have showed suitability for farming, high economic value and market demand. To create the BEST BROODstocks the project plans to: 1) develop genetic markers and bio indicators; 2) create knowledge on the best rearing conditions; 3) improve the control of the maturation cycles; 4) test hormonal therapies and artificial fertilization methods and; 5) reduce dependence on wild fish for egg production. As a result, the BESTBROOD will lead to a more stable and predictable supply of high volumes of high-quality eggs for the production of juveniles to meet market demands for sustainability, and increase Europe's aquaculture competitiveness.

The BESTBROOD brings together a multi-disciplinary consortium of partners with established expertise in fish breeding and reproductive biology to develop, validate and up-scale to the industry new tools and technologies and ensure research efforts are targeted to overcome the main reproductive bottlenecks affecting the project's focus species. The BESTBROOD Multi-Actor Approach (MAA) is oriented to the needs and demands of the aquaculture industry, improving knowledge exchange, innovation, communication and dissemination and thus increasing the final impact of the projects.



## Project Overview

CALL 1 | 2019

### Project Coordinator:

Dr. Jose Beirao, Nord University, Faculty of Biosciences and Aquaculture, Bodø, Norway

### Project Partners:

- Dr. Atle Foss, Akvaplan-niva, Aquaculture Innovation and New Species, Fram Centre, Tromsø, Norway
- Dr. Constantinos Mylonas, Hellenic Centre for Marine Research Institute of Marine Biology, Biotechnology & Aquaculture
- Dr. Manuel Manchado, Instituto Andaluz de Investigación y Formación Agraria, Pesquera, Alimentaria y de la Producción Ecológica (IFAPA), Centro IFAPA El Toruño, Spain
- Prof. Aldo Corriero, University of Bari Aldo Moro, Department of Emergency and Organ, Transplantation, Section of Veterinary Clinics and Animal Production, Valenzano (BA), Italy
- Mrs. Chara Laina, Argosaronikos SA, DELIGIANNI & TELAMONOS, SALAMINA, Greece
- Mr. Ricardo Zerolo Andrey, Cultivos Piscícolas Marinos S.A. (Cupimar), Hatchery. Salina San Juan Bautista, Cadiz, Spain

### Keywords:

Sustainable aquaculture, microalgae microbiomes, precautionary disease treatment, bioactive

### Priority Area:

Exploring improvements in fisheries and aquaculture

### Funding granted:

1.342.971 euros \*



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 817992.

\* The exact amount of granted funds may change after completion of national contracts.