



# aquaculture europe

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## Controlled reproduction and domestication in aquaculture - the current state of the art. Part II

The Aberdeen Declaration –  
A new deal for marine & maritime science

Sustainable coastal aquaculture in Southern Europe

Focus on AE2007



# REPROFISH:

Improving accessibility to finfish reproduction knowledge, for the benefit of the aquaculture industry, scientists and the public

“REPROFISH” is a European 6<sup>th</sup> **Framework Programme** project, bringing together leading **scientific experts** from the fish reproduction field and **fish farming professionals** world-wide. The objective is to summarise the most important breakthroughs in terms of **fish reproduction research** and make this accessible to fish farmers, scientists and **consumer groups**.

The idea for Reprofish arose due to the scattered nature of fish reproduction information and its poor (laborious) accessibility by the non-scientific community. The aim of the project is to gather scientists and the aquaculture industry to **summarise the most important results of current and past research programmes** and to present this knowledge in a comprehensive manner for the benefit not only of the scientific and industry communities but also for the consumer.

An understanding of the function of fish reproduction is of particular interest due to its importance in terms of the **domestication of new species**, its impact on **growth rate** and the **quality of the final product** destined for consumption. Improved knowledge of reproductive processes also has a valuable role to play in control of potential **environmental risks**, especially in relation to **biodiversity**.

There are five **coordinating partner institutes** in four European countries:

- CNRS (National Centre for Scientific Research) / University of Rennes 1 (France)
- INRA (National Institute for Agronomy Research) (France)
- Spanish Council for Scientific Research (CSIC) (Spain)
- University of Utrecht (Netherlands)
- Institute of Marine Research (IMR) (Norway)

The coordinating team communicates with a **global network of expert research teams** looking at the basic mechanisms of fish reproduction and influencing factors such as stress, nutrition, the environment and genetics.



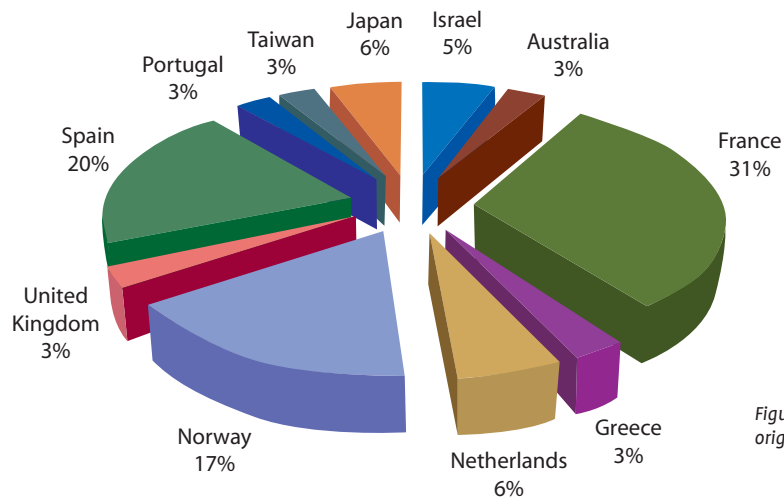
*The Reprofish Working Group of 39 internationally renowned fish scientists*

The Reprofish project is organised around **three main actions**, aiming to improve the benefits, and communicate the outcomes of fish reproduction research:

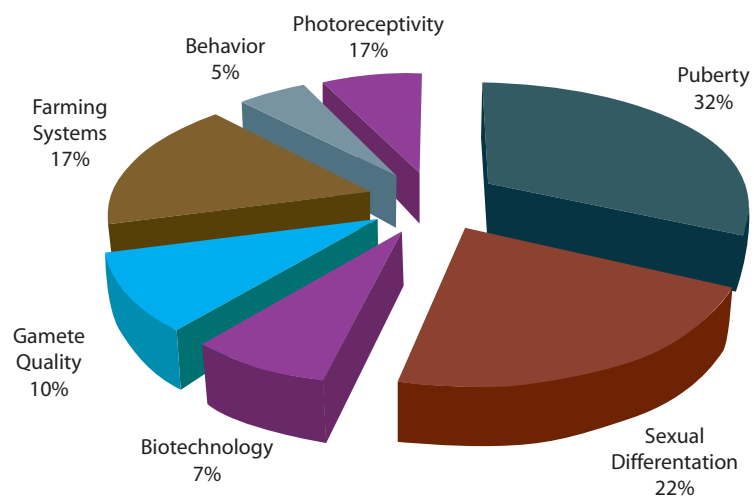
- The **publication of a scientific review**, bringing together and summarising ground-breaking research papers on scientific advances and applied knowledge. In order to prepare this review, the network members, consisting of 39 world-renowned experts, assembled for the first time in Rennes, France, on the 9<sup>th</sup> and 10<sup>th</sup> June 2007.

The main themes of the review will address sex differentiation, gonadogenesis, puberty control, gamete quality, broodstock management and biotechnologies (spawning induction, photoperiod control, cryoconservation, in vitro fertilisation, prospects for new reproductive technologies) to better understand the underlying causes of important industry issues such as sex ratio, precocious puberty and larval development control. The review will be published in spring 2008 and will be available from the Reprofish project website ([www.reprofish.eu](http://www.reprofish.eu)).

- The **creation of a website** (<http://www.reprofish.eu> - launch forecast for autumn 2007), not only destined for the use of scientists, but also aquaculture professionals,



Figures: WG scientist country of origin / disciplines covered.



students and the general public (consumers and their associations). The website will provide a wide range of information concerning fish reproduction, including: basic knowledge on the reproductive physiology of the main farmed species in Europe (salmon, trout, sea bass, seabream, cod...); technical advice sheets (e.g. spawning induction, photoperiodic control of puberty...); courses in reproductive physiology; useful addresses (professional associations in Europe, consumer associations, scientific / expert teams); practical information for fish farm management, including protocols and legal documents; news and events listings.

The initial outline of the project website is now complete and was presented to the Reprofish partners for their expert input.

- The transmission of a **knowledge gap report to the European Commission**, in December 2008, defining

the future orientations for research in the reproductive field, essential for the development of a sustainable aquaculture industry.

The Reprofish project will be holding a **workshop in autumn 2008**, to facilitate dialogue between **scientists and representatives of the European fish farming industry**. The aim of this gathering is to identify the main issues affecting farmed fish reproduction and to propose innovative/original research solutions to improve the competitiveness and quality of the final product. The output of the meeting will be communicated to the European commission in a report highlighting research areas that need to be reinforced or supported.

Contact us:

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Website: [www.reprofish.eu](http://www.reprofish.eu) (official launch autumn 2007)

**RESEARCH FOCUS is an opportunity for you to send news, updates and information to the EAS membership and wider readership...**

Please tell us about RTD projects in which you are involved and on which you would like to disseminate information. This may be in the format of final results, interim results, new projects or those that are in the proposal stage.