



New species for EU aquaculture

Deliverable Report

Deliverable No:	D31.29	Delivery Month:	59
Deliverable Title	Meagre “Know-how Transfer” seminar for the aquaculture industry presenting the progress achieved through DIVERSIFY in the production technology.		
WP No:	31	WP Lead beneficiary:	P18. CTAQUA
WP Title:	Dissemination		
Task No:	31.5	Task Lead beneficiary:	P18. CTAQUA
Task Title:	Full-day seminars on “Know-how Transfer” of the aquaculture of each of the DIVERSIFY species.		
Other beneficiaries:	P1. HCMR	P3. IRTA	
Status:	Delivered	Expected month:	58

Lead Scientist preparing the Deliverable: Robles, R. (CTAQUA)

Other Scientists participating: Mylonas, C.C. (HCMR), Estevez, A. (IRTA)

Objective: The objective of this Deliverable was to organize a “Know-how Transfer” seminar for the aquaculture industry, presenting the progress achieved through DIVERSIFY in the production technology of meagre (*Argyrosomus regius*). The seminar will include 30 min presentations on selected aspects (e.g., reproduction and spawning induction, final product diversification and quality, socioeconomic issues and marketing, etc.), given by DIVERSIFY Partners, but also from any authorities in the species, whose work was not part of the project. Aquaculturists (mainly), but also European aquaculture support companies (feed, pharmaceutical, equipment, engineering, etc.), researchers and educators, government organizations and other important institutions (FAO, Globefish) will be invited to attend these meetings.

Description: A full-day seminar was held on October 9, 2018, at Palau Macaya, Barcelona, Spain. The seminar included brief presentations on selected aspects given by DIVERSIFY Partners, including reproduction and artificial fertilization, nutrition of larvae and juveniles, feeding behavior, cage culture husbandry, final product diversification and quality, socioeconomic issues and marketing, etc. Two presentations were also given by researchers from outside the consortium, working on meagre reproduction and larval rearing (IPMA, Portugal) and feed production (Sparos, Portugal).

The workshop was attended by 38 persons, from various European countries representing commercial aquaculture companies, feed producers, veterinarians, but also researchers and University professors (**Fig. 1**). The Project Coordinator (Dr. C.C. Mylonas, HCMR) and the Species Leader for meagre (Dr. A. Estevez, IRTA) gave introductory presentations to familiarize the attendants with the project, its structure and objectives.

The agenda of the event was available ahead of time in the project web and it was also provided at the registration desk (**Fig. 2**).



Figure 1. DIVERSIFY partners with the banner of the workshop (left) and audience attending the workshop (right)

Agenda

8:30 – 9:00	Welcome and registration
9:10 – 9:15	The DIVERSIFY project (Constantinos C. Mylonas , Coordinator, Hellenic Centre for Marine Research, Greece)
9:15 – 9:30	Meagre and the contribution of DIVERSIFY (Alicia Estévez , Species Leader, Institut de Recerca i Tecnologia Agroalimentaries, Spain)
9:30 – 10:00	Meagre reproduction, use of hormones and paired crossings (Neil Duncan , Institut de Recerca i Tecnologia Agroalimentaries, Spain).
10:00-10:30	Genetic variation of captive meagre (Juan Manuel Afonso , Universidad de Las Palmas de Gran Canaria, Spain)
10:30-11:00	Weaning of meagre larvae (Alicia Estévez , Institut de Recerca i Tecnologia Agroalimentaries, Spain)
11:00-11:30	Coffee break
11:30-12:00	Advances in larval and juvenile nutrition (Daniel Montero , University of Las Palmas de Gran Canaria, Gran Canaria, Spain).
12:00- 12:30	Study of feeding behaviour of meagre towards the development of rearing technologies. (Neil Duncan , Institut de Recerca i Tecnologia Agroalimentaries, Spain and Ioannis Papadakis , Hellenic Centre for Marine Research, Greece)
12:30-13:00	On-growing in cages: Optimizing the rearing conditions (Nikos Papandroulakis , Hellenic Centre for Marine Research, Greece)
13:00-15:00	Lunch
15:00-15:30	Health issues and management (Karl Andree , Institut de Recerca i Tecnologia Agroalimentaries, Spain)
15:30-16:00	Parasites and Systemic Granulomatosis (Pantheis Katharios , Hellenic Centre for Marine Research, Greece)
16:00:16:30	Consumer attitudes and acceptance of new fish products: the case of meagre (Lluís Guerrero , Institut de Recerca i Tecnologia Agroalimentaries, Spain)
16:30-17:00	Natural spawnings and larval rearing (Pedro Pousao , IPMA, Portugal)
17:00-17:30	High performance diets for meagre larvae and early juveniles (Wilson Pinto , Sparos Ltd., Portugal)
17:30-18:00	Round table discussion on bottlenecks to improved production and defining the farmer's needs (Rocio Robles , Dissemination leader, CT-AQUA, Spain)

For further information go to <http://www.diversifyfish.eu/meagre-workshop.html>

 

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Figure 2. Agenda of the meagre workshop.



The presentations begun with the work on reproduction and genetics, with Dr Neil Duncan (IRTA) presenting the studies on the development of paired-spawning and *in vitro* fertilization methods for meagre, in order to enable the industry to implement breeding selection programs. The following presentation from Dr Maria Jesus Zamorano (FCPCT) presented the genetic evaluation of the available broodstocks in Europe, demonstrating that although the variation is reduced, the broodstocks can be used as basis populations for the breeding selection programs. Then followed presentations on larval rearing and nutrition, as well as feeding behavior and grow out husbandry. In the afternoon session, the presentations from DIVERSIFY focused on fish health, socioeconomics and new product development. (Fig. 3)



Figure 3. Representative slides from the meagre presentations of DIVERSIFY researchers.

In the lunch break, the participants had the chance to taste farmed-raised meagre, provided by Andrómeda (Spain). This company is branding its meagre production as Corvina Rex (Fig. 4). A meagre ceviche prepared by the catering service was offered for lunch. The preparation as ceviche was very much appreciated by all the attendees.

At the end of the meeting, a discussion was coordinated by the Dissemination leader Dr Rocio Robles. The session allowed the participants to ask questions regarding the work presented. In addition, it provided the opportunity to the technical staff of the companies involved with meagre aquaculture, to express their opinion on the problems that they are facing.

In general, it was commented that meagre culture is not new since the production of the species started some years ago in some European countries (2005 in Spain, Greece and France), although it did not progress as expected and finally collapsed (no market demand among other reasons). In this new chance for the species, companies are much more confident, mainly because there is quite some knowledge on crucial topics generated in the project (reproduction control, larval survival and nutritional aspect) and quite some technological advances available too. So the general opinion is that it is a great aquaculture species.

Attendees were very interested in having more detailed nutritional information on the species since there is no commercial specifically formulated diet for meagre. There was also a request on availability of specific



recommendations and protocols for the culture of the species and it was indicated that a Technical Manual of the species has been elaborated and it is available at the project web <https://www.diversifyfish.eu/meagre-workshop.html> as a downloadable document (Fig. 5).



Figure 4. Logo of the meagre brand provided for degustation (left) and general view of the lunch break (right).

Conclusions:

This meagre workshop, as well as all the other species workshops, have given the opportunity to share knowledge and worries between the industry and the researches. These type of events have proven to be an adequate forum for know-how transfer of the new aquaculture fish species of DIVERSIFY.

Deviations: No deviations from the DoW occurred.





EU-7FP, DIVERSIFY 603121



New species for EU aquaculture

Technical Manual – Meagre (*Argyrosomus regius*)



Species Leader: Alicia Estevez, (IRTA, Spain),

Other Scientists participating: Mylonas, Constantinos C.; Papandroulakis, Nikos; Papadakis, Ioannis, Katharios, Pantelis; Fountoulaki, Eleni (HCMR, Greece); Fauvel, Christian (IFREMER, France); Duncan, Neil, Andre, Karl, Roque, Ana; Guerrero, Luis; Bou, Ricard (IRTA, Spain); Rodriguez, Covadonga; Perez, Jose (Universidad de La Laguna, Spain); Afonso, Juan Manuel; Montero, Daniel; Izquierdo, Marisol (FCPCT, Spain); Tacke Gemma (SWRDLO, Netherlands); Fontamillas, Ramón, Rosenlund, Grethe (SARC, Norway); Robles, Rocio (CTAQUA, Spain).

Dissemination Leader: Dr Rocio Robles, CT AQUA, <mailto:r.robles@ctaqua.es>

Project Coordinator: Dr Constantinos C Mylonas, HCMR, mylonas@hcmr.gr



DIVERSIFY 2018

QR Code

Figure 5. First page of the Technical Manual for meagre, available in the project web <https://www.diversifyfish.eu/meagre-workshop.html>.



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