

Deliverable Report

Deliverable No:	D31.14	Delivery Month:		35
Deliverable Title	Annual presentation of DIVERSIFY (Y2) at a relevant conference (mainly Aqua			
	Europe meetings, EU Forum) by the Project Coordinator			
WP No:	31	WP Lead beneficiary:		P18. CTAQUA
WP Title:	Dissemination			
Task No:	31.3	Task Lead beneficiary:		P1. HCMR
Task Title:	Presentation of DIVERSIFY at the AQUACULTURE EUROPE meetings			
Other beneficiaries:	P18. CTAQUA			
Status:	Delivered		Expected month:	33

Lead partner preparing the deliverable: Robles, R. (CTAQUA). **Other partners participating:** Mylonas, C.C. (HCMR).

Objective: To make a summary presentation at the European Aquaculture Society's (EAS) annual meeting, presenting the major achievements of DIVERSIFY for each of the included six species.

Description: The AQUACULTURE EUROPE 2016 conference was held between 20-23 September 2016 in Edinburgh, U.K (**Fig. 1**). This year the WP 31 Dissemination leader Dr Rocio Robles gave a presentation in the Special Session "Diversification in finfish production". The session was chaired by Dr. Rocio Robles, who gave the first presentation focused on the results of the project during the first 30 months of the project. Three more summary presentations (20 min) from DIVERSIFY, were also included in the program: two from partner P2. FCPCT (Jiménez, J.I.) on meagre (*Argyrosomus regius*) larvae vitamin requirements and (La Barbera, A. et al.) on greater amberjack (*Seriola dumerili*) larviculture, and one from P7. IMR (Norberg, B.) on Atlantic halibut (*Hippoglossus hippoglossus*) culture advances.

The Project Coordinator (PC) participated in the "EU Session: Research and Innovation supporting European Aquaculture". Dr. Mylonas presented a summary of the major achievements of the project.





Figure 1. The announcement poster of the AQUACULTURE EUROPE 2016 conference (left) organized every year by the European Aquaculture Society, and a view of Edinburgh International Conference Center entrance (right).



The session "Diversification in finfish production" opened with a summary presentation for DIVERSIFY, given by the WP Dissemination leader of the project. The session lasted for the whole morning time schedule (10:30 to 12:50). The first presentation was given by the Dissemination leader of DIVERSIFY (Fig. 2 and 3) and an estimated 80 attendees were present in the room. Due to the fact that the second presentation was a not-show-up, the first speaker had some minutes extra and more time for questions from the audience. Some of the major achievements of the project up-to-date, in the six different scientific disciplines after two years of research were presented. In Reproduction and genetics, it was highlighted the successful spawning obtained with greater amberjack, Atlantic halibut, wreckfish (Polyprion americanus) and grey mullet (Mugil cephalus). A major breakthrough has been the production of 50 kg of greater amberjack eggs that have been distributed to 7 commercial hatcheries in Greece and Cyprus, as well as the production of 150,000 juveniles that have been distributed to 5 commercial grow out sites in Greece. With regard to the Research Area of **Nutrition**, main focus was the development of live feed enrichment protocols and weaning diets for meagre and greater amberjack larviculture and the importance of taurine inclusion in larval diets for grey mullet. A description of the biochemical composition and nutrient content of wild wreckfish filet and the gonads were reported. In the area of Larval husbandry, major achievements have been the first larval rearing studies on wreckfish (Spain and Greece) and the study of the effect of environmental factors on pikeperch larviculture in RAS. With regard to Grow out and husbandry, very promising results have been achieved on meagre feeding behaviour in response to physical/optical stimuli. Production of VNN capsid protein for vaccine development in Atlantic halibut and identification of important parasites in greater amberjack are some of the most relevant results from the Fish health research area. Concerning Socioeconomic results, clear consumer segmentation in regards to their attitude towards new fish products from the DIVERSIFY species has been established. A list of more than 40 different product ideas has been elaborated and 12 of them have been evaluated in terms of production feasibility and food safety. Six of those ideas have been produced and tested with consumers in five different countries.

The audience had several questions to the speaker, which indicates that this is an interesting field of research and that species diversification in aquaculture is of outmost importance for the sector.



Figure 2. Representative slides of the summary presentation of DIVERSIFY during the session "Diversification in finfish production" at AQUACULTURE EUROPE 2016, presented by Rocio Robles (P18. CTAQUA).





Representative slides of the summary presentation of DIVERSIFY during the session "Diversification in finfish production" at AQUACULTURE EUROPE 2016, presented by Rocio Robles (P18. CTAQUA).

The "EU Session: Research and Innovation supporting European Aquaculture" was held on Wednesday, September 21. The session was well attended and the PC summarized the most relevant results of DIVERSIFY and the main breakthrough in the culture of greater amberiack last summer. The presentation begun with an introduction dealing with the world aquaculture status, the current seafood consumption in the European Union (EU) and the underlining reasons for the support of this project by the European Union (Fig. 4).



Representative slides of the summary presentation of DIVERSIFY given by the Project Coordinator at the "EU Session: Research and Innovation supporting European Aquaculture" at AQUACULTURE EUROPE 2016.

Then, the presentation explained the justification of the project's species selection. Then, there was a brief description of the identified bottlenecks of each of the selected species, and a brief mention of some of the major achievements of the project in the six scientific disciplines, which are Reproduction and Genetics, Nutrition, Larval and Grow out husbandry, Fish health and Socioeconomics, including final product quality (Fig. 5).



Reproduction & Genetics (21%) Nutrition (16%) Successful spawning in greater amberjack, Atlantic > Development of enrichment media for live feeds, halibut, wreckfish and grey mullet and weaning diets in meagre and greater amberjack > Genetic description of captive broodstocks of Nutrient content of wild wreckfish and their gonads meagre and pikeperch Effect of Taurine in larval feeds for grey mullet Paired-spawning and in vitro fertilization methods Relation between nutrition and Systemic in meagre and wreckfish Gramulomatosis in meagre Larval husbandry (16%) Growout husbandry (20%) > Production of greater amberjack and grey mullet Study of meagre feeding behavior in response to larvae, and establishment of rearing protocols physical/optical stimuli > First wreckfish larval rearing studies (Spain, Greece) Multifactorial study on pikeperch production (growth, Effects of various environmental factors (light immune and physiological status) intensity, water renewal rate, water flow direction Effect of cage depth on the behavior of meagre and tank cleaning timing) on larval rearing of during growout pikeperch Fish health (13%) Socioeconomics (20%) Identification of the institutional and organizational > Study of the ontogeny of the immune system in context in which the new species can be introduced Identification of consumer segments for the Production of VNN capsid protein for vaccine candidate fish species development in Atlantic halibut Production of ideas and value-added products, and > Identification of important parasites in tested them with consumers greater amberjack

Figure 5. Representative slides of the DIVERSIFY presentation with a mention of the major achievements of DIVERSIFY in the six scientific disciplines.

The presentation highlighted the successful spawning obtained with greater amberjack in 2016 (**Fig. 6**), with the major breakthrough of the production of 50 kg of greater amberjack eggs that have been distributed to 7 commercial hatcheries in Greece and Cyprus, as well as the production of 150.000 juveniles that have been distributed to 5 commercial grow out sites in Greece. This is the first time that the large scale commercial grow out of greater amberjack will be attempted in the Mediterranean, and we are looking forward to the feedback that we will obtain from the different rearing sites.





Figure 6. The slide presenting the very recent results in the reproduction and juvenile production of greater amberjack in Greece.

Afterwards, a presentation of the website (www.diversifyfish.eu) and its organization was provided, encouraging people to seek information on the project, either according to species of interest or of scientific discipline. A presentation was also made on the four magazine publications that have been made so far in the "Aquaculture Europe" magazine (Fig. 6), including the very recently published article on Atlantic halibut research. This magazine is being published on a trimester-basis by the European Aquaculture Society (EAS) and an arrangement has been made between DIVERSIFY and EAS to publish two articles every year, each time summarizing the work done in all scientific disciplines within each species of DIVERSIFY.



Figure 7. The slide presenting the three magazine publications that have been made so far in the "Aquaculture Europe" magazine, the official magazine of the European Aquaculture Society.



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The PC was also invited to give a brief presentation at the round table discussion of the "EATiP Day" (**Fig. 8**). The potential of species diversification in facilitating the expansion of the EU aquaculture was promoted, and there was a very lively discussion on which species could be the most appropriate for incorporation into the European aquaculture industry.

As in the previous EAS meetings, there were many opportunities to publicize DIVERSIFY during the conference, and to inform numerous colleagues on the project's objectives, already implemented and planned work. People were encouraged to follow the website of the project, where we have been uploading regularly news regarding the project. Interested researchers and industry managers were also informed of the open component of the Annual Coordination Meetings, and various researchers expressed an interest to coordinate their research activities with DIVERSIFY and perhaps carry out joined experiments.

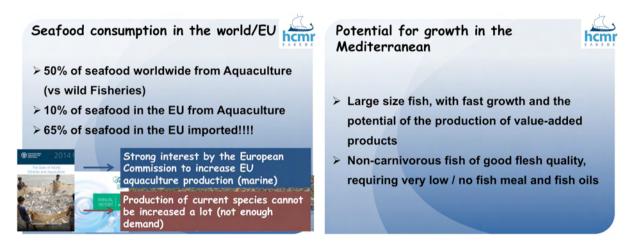


Figure 8. Representative slides from the presentation of the PC at the "EATip Day", round table discussions, after the invitation by the EAS Secretary.

Deviations: The deliverable is submitted 2 months later that anticipated in the DOW. Since the Aquaculture Europe conference has been held at the end of September (month 34), the deliverable has been produced once the conference was finished.



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