



New species for EU aquaculture

Deliverable Report

Deliverable No:	D31.28	Delivery Month:	59
Deliverable Title	Annual presentation of DIVERSIFY (Y4) 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:			
Status:	Delivered	Expected month:	57

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 2018 conference was held between 25-29 August 2018 in Montpellier, France (**Fig. 1**). The conference was attended by 2200 persons, including the visitors to the Trade show. This year the Dissemination leader Rocio Robles gave a presentation in the Socio-economic Session on "DIVERSIFY - New/emerging finfish species (EU Project)".



Figure 1. The announcement poster of AQUACULTURE EUROPE 2018 (left) organized every year by the European Aquaculture Society, and a view of the Congress Palace Le Corum, where the meeting was organized (right).

The presentation on DIVERSIFY was held on Monday, August 27, 2018. The Dissemination leader summarized the most relevant results of DIVERSIFY with special emphasis in the area of Socio-economics. The talk started with a very brief mention of the project and its consortium, and the underlying reasons for the support of this project by the European Union (**Fig. 2**).

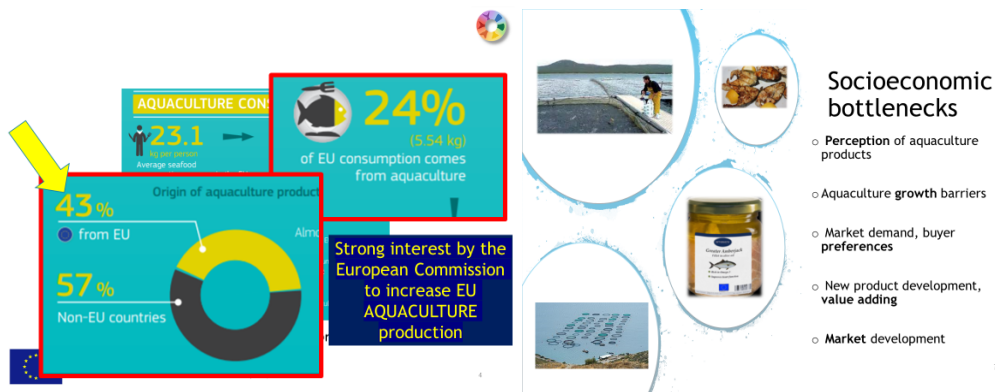


Figure 2. Representative slides of the summary presentation of DIVERSIFY during the Socio-economic session at AQUACULTURE EUROPE 2018, presented by the Dissemination leader.

Major results of the project in the different research areas were presented according to fish species: meagre, greater amberjack, Atlantic halibut, pikeperch, grey mullet and wreckfish (Fig. 3). In meagre, the study of the genetic variability of many of the existing broodstocks in Europe has been completed and methods for the implementation of selective breeding (*in vitro* fertilization and paired spawning) have been developed. Protocols for live food enrichment to improve larval survival and growth have been also developed and evaluated. Feeding behaviour in cages has been extensively studied in order to improve meagre performance during grow-out. The immune system characterization of the species is undergoing.



Figure 3. Representative slides of species achievements in the project.



In greater amberjack there has been a major advance in the broodstock management and spawning induction methods, including the first spawning of F1 stocks. This has allowed the production of a significant amount of juveniles. The main challenge for this species is the control of parasitic infestations during grow-out in cages. In the case of grey mullet, protocols for the application of hormonal therapies to enhance gametogenesis and to induce spawning and produce good quality eggs have been developed. The environmental and nutritional aspects of larval rearing and weaning to herbivorous diet have also been studied. Concerning wreckfish, the most challenging species of DIVERSIFY, it has been possible to obtain juveniles for the very first time in aquaculture. An *in vitro* fertilization protocol has also been developed for wreckfish. With the information obtained from the analytical work with wild specimens it has been possible to design a broodstock diet specific for the species (Fig. 3).

The socioeconomic work was described more in detail in accordance with the topic of the session where DIVERSIFY was presented. The main objectives of the work package were introduced (Fig. 4). Consumer segmentation, new product development (meagre, amberjack, grey mullet and pikeperch), consumer evaluation of these products and a business model for each DIVERSIFY species were addressed during the talk. The developed products were: fresh frozen greater amberjack filet, ready-to-eat meagre salad, grey mullet in olive oil, smoked grey mullet filet, pikeperch hamburger with the shape of a fish and fish pate (made with pikeperch) (Fig. 4). The products were selected to cover an ample range of processing, following an increasing degree of processing (from the fresh filet to the paté). The degree of processing was an important part of the consumer's evaluation. Moreover, an on-line market has been also performed and the results are under evaluation at this moment.



Figure 4. Slides of the Socio-economic presentation, indicating the objectives of the work package (left) and the six developed products elaborated for the consumer evaluation tests (right).

The last part of the presentation focused on the dissemination activities of the project, firstly on the popularized format that has been used from the beginning of the project, publishing 1-2 articles every year, using the European Aquaculture Society (EAS) magazine as one of the dissemination routes. This magazine is being published on a trimester-basis by the EAS and an arrangement has been made with DIVERSIFY to publish two articles every year, each time summarizing the work done within each species of DIVERSIFY in all scientific disciplines. After the conference (October, 2018), a compilation of all the DIVERSIFY articles published in the EAS magazine has been produced (Fig. 5) and it is available in the project's web site at (<https://www.diversifyfish.eu/>).

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. The participants were also informed of the availability of all the presentations given during the annual coordination meetings, and more recently as work is completed and submitted for publication, the scientific articles from the project -32 Articles so far (**Fig. 6**). Likewise, it was provided the information concerning to the organization of the Species Workshops in the different European countries. At the moment of the conference, three Species Workshops were already organized: grey mullet in Bari (Italy), pikeperch in Nancy (France) and wreckfish in Vigo (Spain) (**Fig. 7**).

Finally, the attendants were informed of the organization of the **Species-specific workshops** were applied knowledge obtained during the courser of the project is disseminated to the aquaculture industry. The information provided includes aspects of reproduction and spawning induction, larval rearing, grow out, nutrition, final product diversification and quality, etc.) given by DIVERSIFY researchers, but invited speakers with relevant experience in the species are also participating. The workshops have been attracting people from the aquaculture sector, with an important participation of producing companies and aquaculture support companies (feed, pharmaceuticals, consulting, etc.), researchers, government organizations and other important institutions. The seminars are organized by the Species Leaders from DIVERSIFY in countries where the particular species are cultured --or has the potential to be cultured.

RECENT ACTIVITIES RECENT ACTIVITIES RECENT ACTIVITIES RECENT ACTIVITIES

DIVERSIFY IN AQUACULTURE EUROPE MAGAZINE: ALL OUR ARTICLES IN ONE SINGLE ISSUE!!

Click on the image below or capture the QR to have access to the file.



Figure 5. Screen shot of the project web with the front page of the compilation of all the published DIVERSIFY articles in the EAS magazine and the corresponding QR.

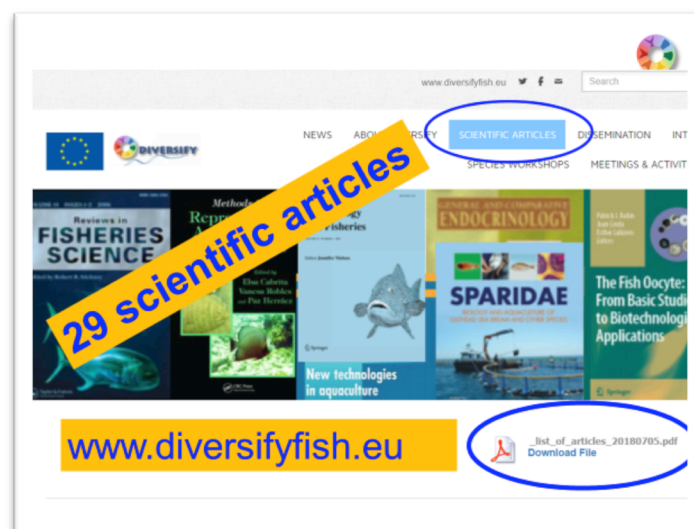


Figure 6. Project web page where to find all the scientific publications from the DIVERSIFY work.



Figure 7. Slide showing the location of the Species Workshops events. In red the already completed workshops at the time of the conference, and in green the ones still to be held.

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.

Deviations: The deliverable is submitted 2 months later that anticipated in the DOW. The deliverable has been produced once the conference was finished.



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