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Knowledge transfer workshops – Pike perch
Nancy, 27 June 2018

Exploring the biological and socioeconomic potential of
new/emerging candidate fish species for the expansion
of the European aquaculture industry:



Co-funded by the
Seventh Framework
Programme
of the European Union



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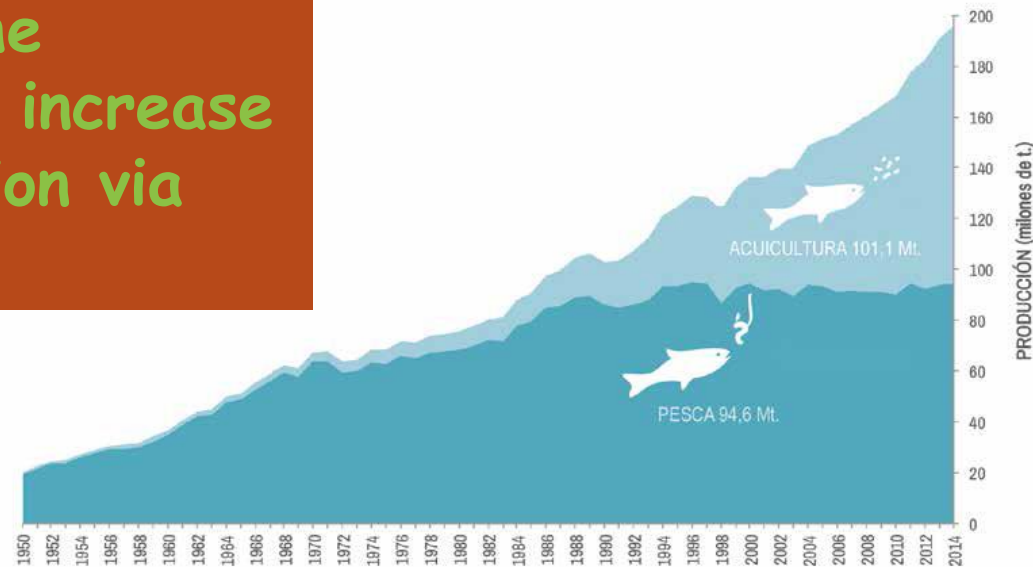
Rocio Robles, Dissemination
leader/Scientist
CTAQUA
Cadiz, Spain



Seafood consumption in the world/EU

- **50% of seafood worldwide from Aquaculture**
- **10% of seafood in the EU from Aquaculture**
- **65% of seafood in the EU imported**

Strong interest from the European Commission to increase EU aquaculture production via DIVERSIFICATION





Problems with Mediterranean species



- Consumers prefer fillets, steaks, ready-to-cook
- Small, plate size (difficult to prepare, bones)
- Larger fish more expensive to grow (3



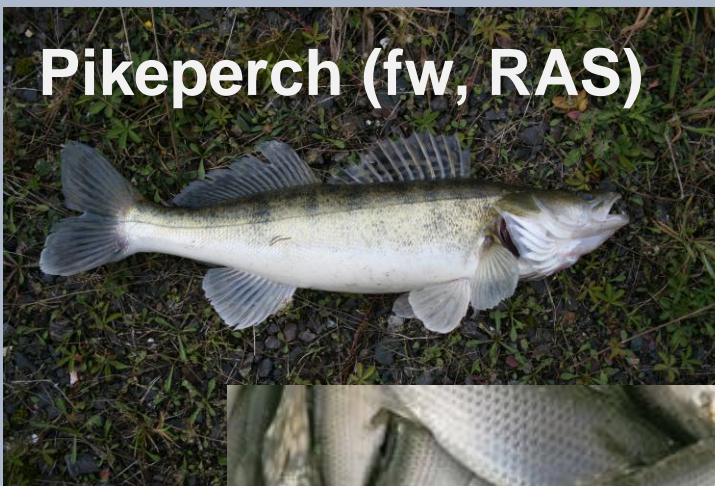


Choice of new/emerging species

greater amberjack



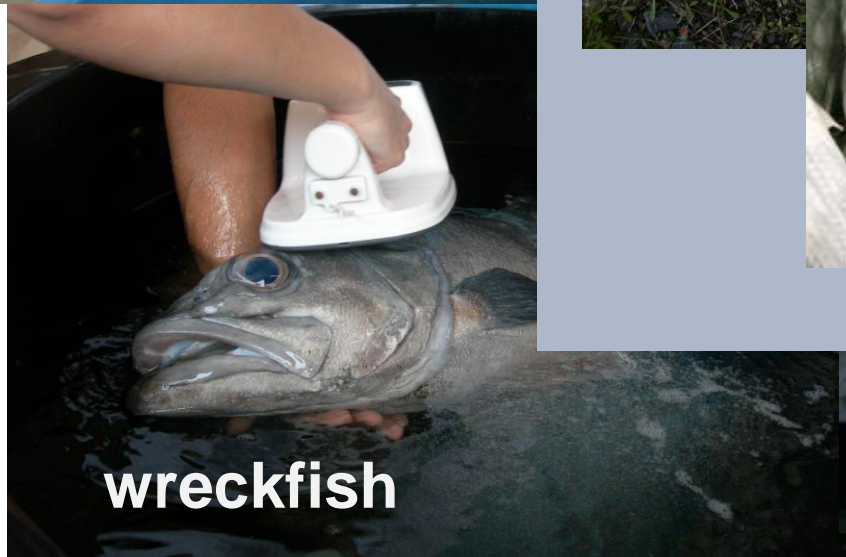
meagre



Pikeperch (fw, RAS)



grey mullet



wreckfish



Atlantic halibut



Partnership of DIVERSIFY

[ctaqua](http://ctaqua.eu)

37 partners:

**Spain, France, Italy, Greece,
Israel, Belgium, Denmark,
Netherlands, Norway, UK,
Germany and Hungary**



20 Research/Universities
9 Small Medium Enterprises
2 Large companies
5 Professional associations
1 NGO



Bottlenecks of the six species



Meagre: Limited genetic variation, nutrition, health



Greater amberjack: Reproduction, juvenile production, parasites



Wreckfish: broostock availability, reproduction, juvenile production



Pike perch: juvenile production



Halibut: reproduction, juvenile production, health



Grey mullet: reproduction, larval rearing, nutrition)



Socioeconomic bottlenecks

- perception of aquaculture products
- Aquaculture growth barriers
- market demand, buyer preferences
- new product development, value adding
- market development







1-MEAGRE

[ctaqua](http://ctaqua.eu)



- Description of the **genetic variability** of the broodstock
- Paired-spawning control and *in vitro* fertilization methods
- Successful spawning protocols
- Protocol for enrichment of live food in larviculture (DHA)
- **Grow out**: response to physical stimuli
- Day and night distribution in **sea cages**



2- GREATER AMBERJACK

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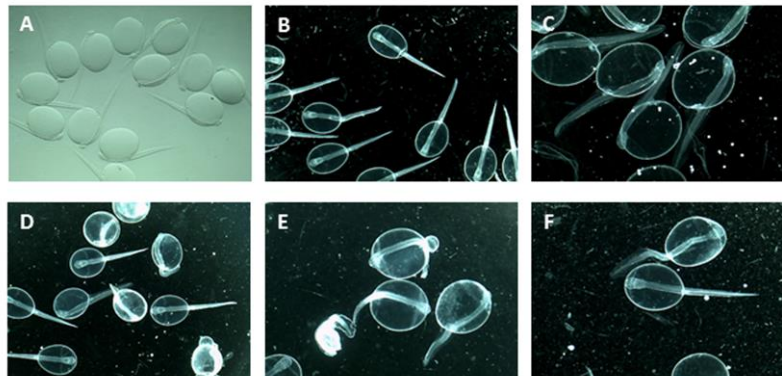
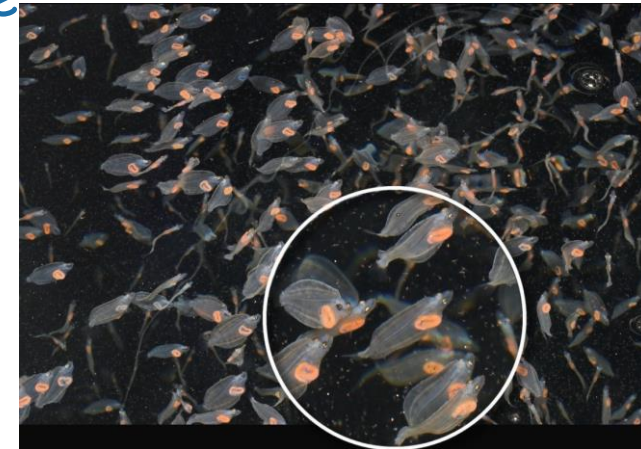
- Successful hormonal control of reproduction (implants). First spawning of F1 stocks
- 500.000 juveniles obtained → grow out cages
- Main challenge: control of parasites in grow out





3- ATLANTIC HALIBUT

- F1 fish could be hormonally induced to spawn earlier with higher fecundity than controls
- Larval rearing using on-grown Artemia, early weaning and improvement of juvenile quality
- Development of a VNN vaccine: capsid replicated





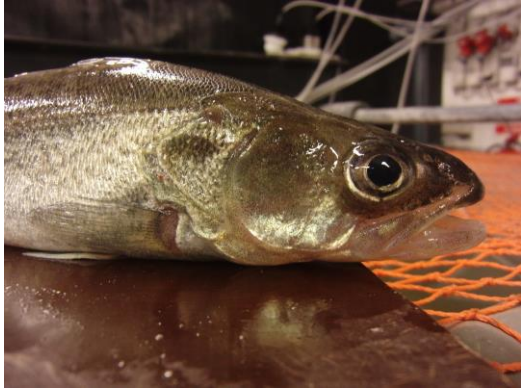
4-GREY MULLET



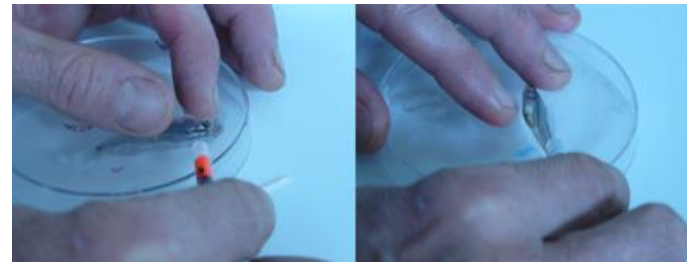
- Important knowledge generated on herbivorous sps.
- Controlled reproduction by hormonal treatment
- Effect of Taurine in larviculture
- High number of juveniles obtained
- Grow out systems under evaluation



5-PIKE PERCH



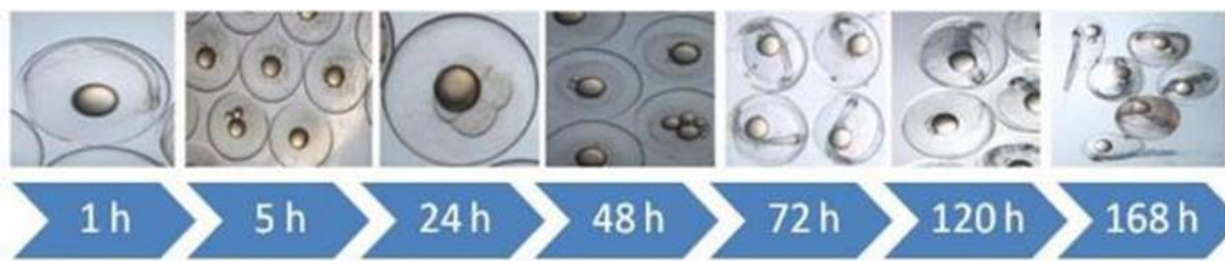
- **Genetic variability** of cultured broodstock and comparison with wild populations for future breeding selection programs
- Relevant role of **HUFA** and vitamins in **larviculture**.
- Prevention **high cannibalism** in larviculture
- Effects of various **environmental factors** (light intensity, water renewal rate, water flow direction and tank cleaning timing) on larval rearing of pikeperch.



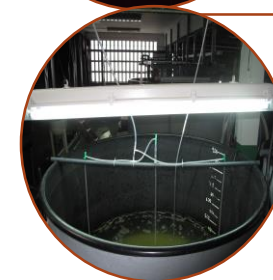


6- WRECK FISH

- Most challenging species
- *In vitro* fertilization protocol.
- Development of broodstock diet
- Limited larviculture period (35 and 60 days)



High larval mortality.



Survival up to 60 dph.



Socioeconomics

- Identification of consumer segments for the candidate fish species
- Organoleptic characterization
- Production of ideas and value-added products, and testing them with consumers
- On line supermarket trials





Production of ideas and value-added products, aqua and testing with consumers

41 ideas for new product development of value added products.



12 ideas selected for checking **production feasibility and shelf-life.**



6 ideas selected for **consumer evaluation** in Spain, UK, Germany, France and Italy.



Fresh frozen **greater amberjack** filet

C
T
A
Q
U
A



Grey mullet in olive oil



Smoked **grey mullet**



Ready to eat **meagre** salad

IRTA



Hamburger fish shape (**pike perch**)



Fish paté (**pike perch**)





Dissemination

www.diversifyfish.com



The pikeperch (*Sander lucioperca*) is a key species in the 2019-2021 year project for the diversification of DIVERSIFY. The organization of DIVERSIFY includes the organization of workshops for fish farmers. The event is opened to...

The workshop is addressed to various aspects of pikeperch rearing but is limited to 50 participants,...

PIKEPERCH KNOW-HOW TRANSFER WORKSHOP

Access to

- Presentations from all annual meetings
- Scientific articles
- Technical Leaflets (species specific)
- Presentations from this workshop



DIVERSIFY in 3 minutes!

<https://www.diversifyfish.eu/>

<https://youtu.be/49EkZKBkiaQ>



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New species for EU aquaculture

THANK YOU
www.diversifyfish.eu

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