



EASinfo

Quarterly update for EAS members

Summary reports of the EAS events held in 2011

The summary report, as well as the individual presentations by panellists at the Aqua Nor Forum 2011 are now available at www.easonline.org The Forum addressed the up-scaling of aquaculture production systems on land, in cages and using the eco-approach to production. A full list of participants is also available.



Meanwhile, session reports are still coming in from the chairs of the AE2011 event and these will be compiled in a full summary document, to be posted at the EAS web site once completed. Furthermore, we have requested the plenary presenters and **those that shared 'mini-keynotes'** at the start of most sessions to have their



permission to post their presentations online. These too will be available shortly.

The December edition of our Aquaculture Europe magazine will feature the latest news on IMTA, as presented by Thierry Chopin at the Forum and Lara Barazi-Yeroulanos, who opened AE2011 with an excellent overview of the contribution of EU aquaculture to European food production, has kindly made available her presentation notes that form the basis for an extended in this edition.

Expansion with improved governance is the future for aquaculture

If aquaculture is to fulfil its great potential to ease world food shortages, good governance and responsible development are essential. For the small pelagic and fishmeal sector this includes rights-based management of fisheries which will improve product quality and open up more market opportunities for human consumption. Expansion of aquaculture offers huge opportunities for developing countries which can improve governance and increase responsible practice.

where the host country reported substantial progress in improving controls on fisheries including the introduction of Individual Transferable Quotas.



IFFO also announced that more than 50% of its **Members' production capacity, and nearly 30% of world capacity**, had achieved certification to the responsible supply (RS) standard launched two years ago.

These were among the key messages from the IFFO 2011 Annual Conference held recently in Lima, Peru,



EAS is an International Non-Profit Association that promotes contacts among all involved in aquaculture. EAS was founded in 1976. EASinfo is the **members' e-newsletter** of EAS.

<http://www.easonline.org>

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IFFO and partners, including Sustainable Fisheries Partnership and FAO, are developing an Improvers' Programme to enable producers struggling to meet the RS

Standard to work towards it.

Some key facts and figures from the conference:

Proportion of IFFO Member production capacity which has achieved certification since the RS was introduced in 2009	50%
Reduction in landings of undersize fish in Peru since MCLV introduced	47%
Forecast GDP growth rate in China and Vietnam for 2016	30%
% of the world's middle class living in Asia Pacific by 2030	66%
Increase in global aquaculture production required to meet demand in 2025 (from 2008 levels)	22-42Mt
People who contract preventable disease through too little omega-3s	2 million
Global public health cost over the next 20 years of diseases which omega-3s are believed to play a role in preventing	\$47 trillion
Undernourished people in the world in 2010	925 million
Proportion of world population with fish-related livelihoods and well-being	8%
Record attendance at the 2011 IFFO Annual Conference, in Lima.	498

Source: Anne Chamberlain, Communications Consultant to IFFO. www.iffo.net

Retaining health benefits in sustainably farmed fish

Skretting Aquaculture Research Centre is joining an EU-funded project to maximise the retention of marine omega-3 fatty acids in farmed fish given feeds with improved sustainability.

One way of raising the sustainability of fish feeds is to reduce the content of the marine raw materials fishmeal and fish oil. This is being achieved through the use of vegetable alternatives. However that can also reduce the amount of the marine fatty acids EPA and DHA in the diet of the fish. These fatty acids are responsible for some key health benefits of fish for the consumer. The four-year project, starting January 2012, will identify ways of maximising the retention by the fish of the marine fatty acids that are present in these diets.

Researcher Ingunn Stubhaug explains: "We will explore ways of producing fish on diets that, across the full growth phase, have a lower content of marine oils. This can be achieved by identifying suitable antioxidants to protect the highly unsaturated fatty acids from



oxidation, and optimising their inclusion levels. Another approach is to phase the levels of marine oils in the feed across the growth stage, without compromising the health and welfare of the fish. We will also explore the influence of water temperature and the molecular structures of the triglycerides holding the omega-3 fatty acids in the fish flesh."

The EU project, known as Omega3max, is an industry-academia partnership led by the University of Madrid, Spain. Other partners are the Christian-Albrechts University in Kiel, Germany, and Lucta, a Spanish company specialising in antioxidants. Skretting ARC will formulate the feeds for the trials, which will be conducted at the Skretting ARC Lerang Research Station. As a Marie Curie Actions project, wider objectives include support for the training and career development of researchers. Researchers from the universities will work at Skretting ARC during the trials and Skretting researchers will take part in activities at the universities.

HCMR calls for your support

The Hellenic Centre for Marine Research (HCMR) is one of the most important Greek Research Centres with more than 70 years of history. The Greek Government, in the name of applying measures for the reduction of public expenses, is planning to immediately suppress the annual state funding of HCMR by 30%, with the eventual goal of making it a private institution. Today, Greece allocates less than 0.6% of its GDP for research, compared to the 1.85% EU average. Given that private funding for aquatic

research in Greece is extremely limited, especially during the current economic recession, the reduction of state funding will devastate our multidisciplinary European Centre, constricting our capacity for research and education, and arresting our activities in the Mediterranean and beyond.

Constantinos Mylonas, co-chair of AE2011 has therefore **asked for the support of EAS members.** "We are strongly

opposed to this possibility, since the current funding is barely enough to pay ONLY our salaries, and for every 1 euro that we receive from the government, we competitively obtain another 3 from European and International grants/ services. This money pays not only our operational costs for carrying out world-class research, but it also pays



salaries of a large number of contract-scientists and technicians, contributing significantly to employment. Please therefore consider your support”.

The petition is at <http://www.gopetition.com/petitions/support-the-hellenic-centre-for-marine-research-hcmr.html>

Videos – and more videos....

Videos, especially those published on social media site are being more and more used to pass the messages on sustainable aquaculture production. Two recent examples:

The European Federation of Animal Science (EAAP) has made available videos of presentations at its 2011 annual event in Stavanger, Norway. Although EAAP events cover all animal production, a special session was organised on breeding applications in the aquaculture industry. These included:

- Design of low-cost aquaculture breeding programmes: challenges and opportunity
- Utilising genomic information in salmon breeding and disease resistance
- Simultaneous analysis of two challenge tests and body weight in fish: an example of multivariate generalized linear mixed model
- Development of 6K Illumina iSelect SNP array for mapping QTL in rohu (*Labeo rohita*) and black tiger shrimp (*Penaeus monodon*)
- Detection of growth-related QTLs in turbot (*Scophthalmus maximus*)
- Adaptation and selection in aquacultural populations
- Genomic tools to trace and monitor the genetic impact of aquaculture escapes

The videos are at <http://www.eaap.org/Stavanger/videos.html>

IFFO has also released a new film on the independent certification programme for fishmeal and fish oil instigated by IFFO. The film shows how it is rapidly becoming the recognised standard for marine feed materials. Leading

supermarket and seafood brands, international fish farmers and NGOs say why they believe the programme is the first link in a fully responsible aquaculture value chain.

The eight minute film was premiered at the IFFO Annual Conference in Lima, Peru. Delegates also heard that, just two years after its launch, nearly 30% of the world's fishmeal and fish oil production capacity was now certified to the RS Standard.

You can watch or download the film at <http://bit.ly/ifforsvideo> or see it on YouTube <http://youtu.be/OS9lfs3GDsM>. The full RS Standard and a list of facto-

ries which have achieved certification are on the IFFO web site at www.iffonet.net - click on IFFO RS in the main navigation bar.

Please send us your news

EASinfo is your newsletter. It is there for you to share with other EAS members, but this can only be done if you give us information...

...so please send Alistair a.lane@aquaculture.cc information about your research news, your company or institute, changes in your career and requests for other EAS members that may be able to help you.

We will be happy to include it in the next edition.





Submit your abstract for AQUA 2012

Now is the time to submit your abstract for AQUA 2012. An extensive list of sessions is proposed under several key sections:

- Environment, Biodiversity and Climate Change
- Aquaculture standards certification, schemes, costs and benefits
- Aquaculture and Human Health
- Production Systems
- Feedstuffs, Feeds and Feed additives
- Molluscs & other Invertebrates
- Marine Shrimp
- General Finfish Culture
- Freshwater Fish Culture
- Marine Fish Culture
- Seaweeds and Algae
- Ornamentals
- Other Species Culture
- Aquaculture Economics
- Animal Science, Welfare, Health and Diseases
- Breeding & Genetics



Submit your abstract at

<https://www.was.org/WasMeetings/Abstracts/default.aspx?Code=AQUA2012>

Deadline is February 1.

Addendum Aquaculture Europe magazine Vol. 36(3) September 2011

Article "Bigger ponds favour Nile tilapia production", page 30.

Printing mistake in Figure 2. The correlation value for pond size and body weight is positive but in the article it was published in a negative value.

The correct figure is:

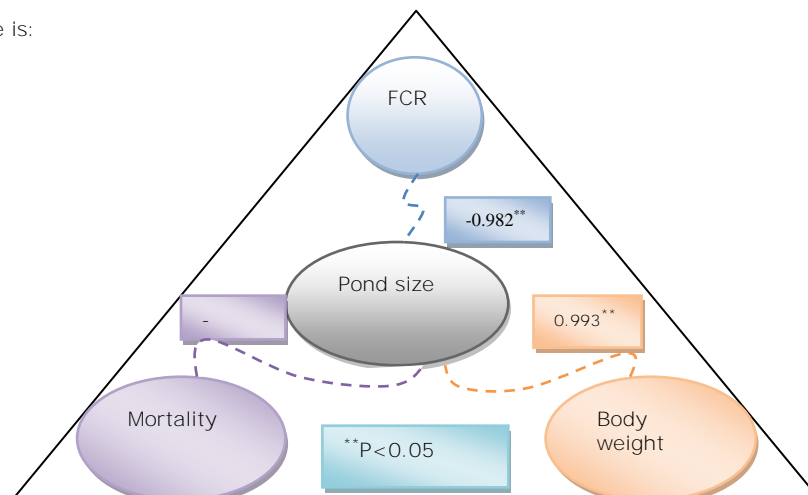


Figure 2. Correlation analysis for observing the effects of pond size on different criteria

The EASinfo newsletter will be sent to EAS members in between each issue of their Aquaculture Europe magazine. "Please make it yours and send us any information or announcements that you would like to convey to other EAS members". Mail your short contributions to eas@aquaculture.cc.