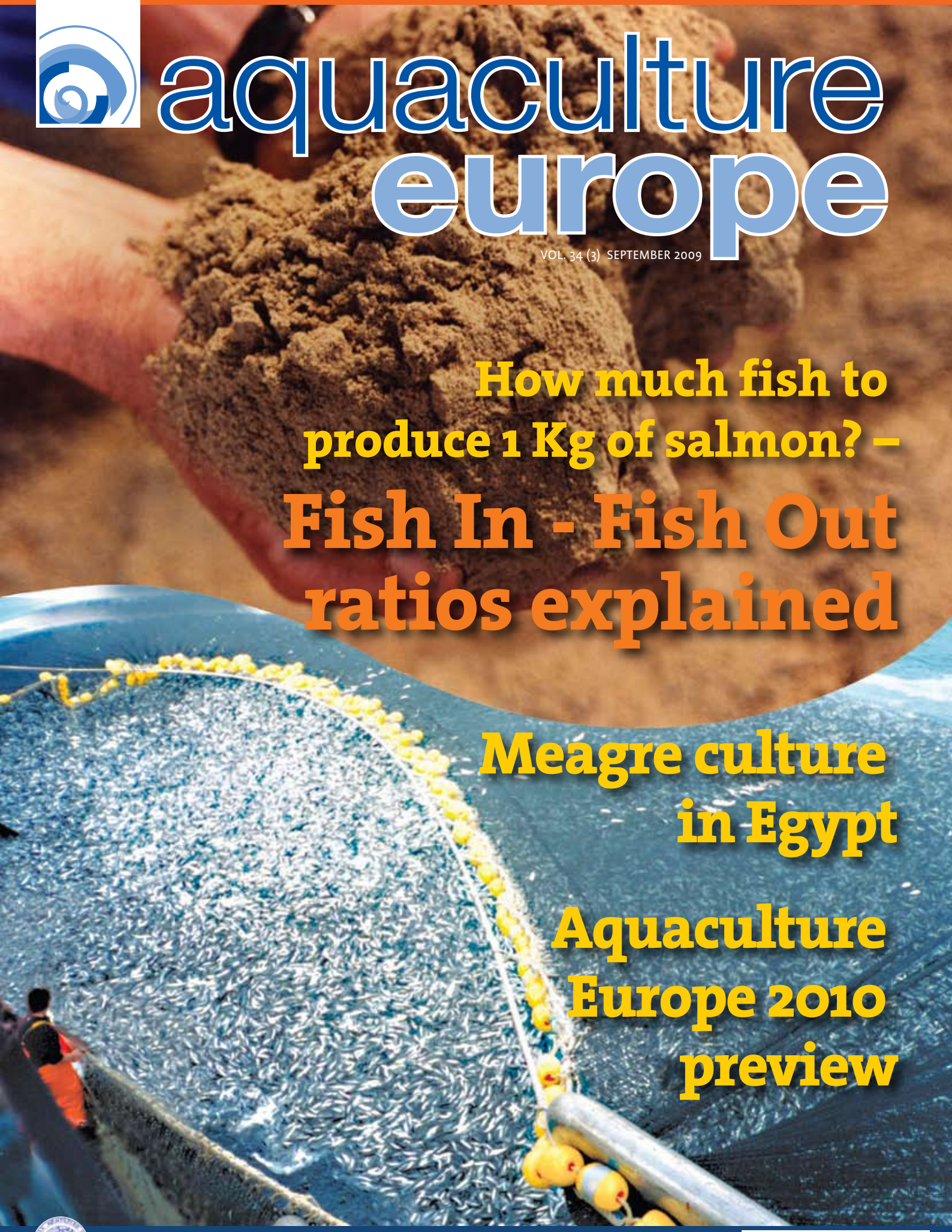
Aquaculture Europe 2010 – Seafarming Tomorrow

aquaculture europe

VOL. 34 (3) SEPTEMBER 2009



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THE MEMBERS' MAGAZINE OF THE EUROPEAN AQUACULTURE SOCIETY

3rd Quarter 2009
Afgiftekantoor: 8400 Oostende Mail

New Brunswick Researchers Receive Award Of Excellence For Developing Innovative Aquaculture Practice

Dr. Thierry Chopin, from the University of New Brunswick in Saint John, and Dr. Shawn Robinson, from Fisheries and Oceans Canada St. Andrews Biological Station, are the recipients of the 2009 Aquaculture Association of Canada Research Award of Excellence for taking the concept of Integrated Multi-Trophic Aquaculture (IMTA) from the laboratory to the realm of commercial production. IMTA is a practice that uses an ecosystem approach to aquaculture by growing multiple species that complement each other – like finfish, mussels and seaweeds.

Dr. Shawn Robinson (left) and Dr. Thierry Chopin (right) are the recipients of the 2009 Aquaculture Association of Canada (AAC) Research Award of Excellence. They are shown here with Dr. Debbie Martin-Robichaud, President of the AAC, at the AAC annual conference in Nanaimo, British Columbia (Photo courtesy of Manav Sawhney).

Drs. Chopin and Robinson became interested in aquaculture in the late 1990's when they realized that the significant amount of byproducts generated by fed finfish aquaculture, such as salmon, could be used to provide nutrients and enhance the cultivation of extractive species, such as seaweeds (kelps and dulse) and invertebrates (suspension feeders such as mussels, and deposit feeders such as sea urchins, sea cucumbers and sea worms).

Through IMTA, some of the food, nutrients and energy considered lost in finfish monoculture are recaptured and converted into crops of commercial value, while biomitigation takes place.

"With this process, all the cultivation components have an economic value, as well as a key role in environmental and societal services and benefits," said Dr. Chopin. "The harvesting of the different types of crops participates in the recapturing of nutrients and carbon from the coastal ecosystem. Companies practicing IMTA should be rewarded through a system of nutrient and carbon trading credits." Moreover, the evolution in aquaculture practices contributes to modifying people's perceptions of this food production system, which is anticipated to become even more prevalent in the future in order to satisfy an ever seafood-hungrier human population.

In 2000, Drs. Chopin and Robinson assembled an inter-disciplinary team to investigate the different, complex and inter-related aspects of IMTA. This team included natural and socio-economic scientists and graduate students at the University of New Brunswick and the DFO St. Andrews Biological Station, and industrial partners (Heritage Salmon Ltd. and now Cooke Aquaculture Inc., Acadian Seaplants Limited and Ocean Nutrition Canada). Between 2001 and 2006, they received funding from AquaNet, Canada's Network of Centres of Excellence for Aquaculture, and the New Brunswick Innovation Foundation. Since 2006, the project has expanded from research and development to commercialization with the support of the Atlantic Canada Opportunities Agency's Atlantic Innovation Fund.

Drs. Chopin and Robinson have always emphasized the need for scientific research and commercial IMTA to develop together. "Our goal is to produce a more efficient and environmentally benign practice that the Canadian aquaculture industry can evolve into, and that is rooted in ecosystem-based processes," said Dr. Robinson. "All of the team's research to-date indicates that this is entirely plausible."

The Research Award of Excellence was recently presented to Drs. Chopin and Robinson in Nanaimo, British Columbia, during the Aquaculture Association of Canada's annual conference. The award recognizes high quality, innovative and current research that has had a significant impact on the aquaculture industry in Canada.