



Title: The emerging organic aquaculture: European and Italian state of art of a sustainable production model

Scientific Track: Fisheries Governance and Promoting Aquaculture Sustainability

Full Name: Domitilla Pulcini, Luca Buttazzoni, Fabrizio Capoccioni

Affiliation: Consiglio per la Ricerca in Agricoltura e l'Analisi dell'Economia Agraria (CREA) - Centro di ricerca di Zootecnia e Acquacoltura- Via Salaria 31 – 00015 Monterotondo (Rome), Italy.

Abstract

Organic aquaculture is still in its infancy, as the European regulation has been promulgated in 2007, and amended in 2009. Some specific aspects of Reg. (EC) 834/2007 are still under revision. Even if EU organic aquaculture experienced an increase in the last years, its economic performances are still far from being satisfactory and the consumer is disoriented because of the lack of clear information about farmed organic fish. European organic production in 2015 amounted to 50,441 tonnes (3.9% of total production), and the main species produced were salmon, mussel, carp, trout, seabass and seabream. Italian organic production data are updated to 2016 (data collected within the BioBreed-H₂O project, financed by the Italian Ministry of Agriculture and Forestry). The number of organically certified farms decreased from 40 (2015) to 29. The total organic production in 2016 increased respect to 2015 from 4,540 t to 6,920 t, even if must be considered that, in 2015, data from eight mussel farms were not provided. Mussel farms (11) and coastal lagoons (10) were the most abundant, then trout farms (3), clam farms (2) and seabream and seabass off-shore cages (2). The 79.3% of organic farms were located in the North of Italy. The top ten species produced were mussel (*Mytilus galloprovincialis*, 5,898 t), rainbow trout (*Oncorhynchus mykiss*, 900 t), clam (*Ruditapes decussatus*, 263 t), gilthead seabream (*Sparus aurata*, 97 t), mullets (several species, 89 t), seabass (*Dicentrarchus labrax*, 10 t), oyster (*Ostrea*

edulis, 4 t), eel (*Anguilla anguilla*, 3.3 t), big-scale sand smelt (*Atherina boyeri*, 2.5 t) and prawn (*Penaeus japonicus*, 0.8 t).

Short Biography

Dr. Domitilla Pulcini is currently working as post-doctoral fellow at the Council for Agricultural Research and Economics – Research Centre of Animal Production and Aquaculture. Dr. Domitilla Pulcini received her PhD on Evolutionary Biology and Ecology from the University of Tor Vergata (Rome). She then worked at the University of Tor Vergata (Rome), where she was involved in several research project on organic aquaculture, sustainable fisheries and fish species conservation. Dr. Domitilla Pulcini has authored several publications in various journals. Her publications reflect her research interests in fish ecomorphology, nutrition and sustainable aquaculture. Dr. Domitilla Pulcini was in charge for the class of “Fisheries Ecology and Experimental Aquaculture” at the University of La Tuscia of Viterbo.

Research Interest:

Her fields of research cover the ecology and adaptive ecomorphology of marine and freshwater fishes, with particular reference to species of economic interest. Highly specialized in bio-monitoring of fish morphological and anatomical quality under rearing conditions (detection of skeletal anomalies in reared fish and application of geometric morphometrics tools for the assessment of fish morphological quality). Involved in several research projects about different topic such as organic aquaculture, management of coastal lagoons fisheries and environment, and nutritional quality of fishes of commercial interests.

Keywords: Certification, Coastal lagoons, Organic aquaculture, Mussel, Sustainability

Acknowledgements:

This research was carried out within the research project BioBreed-H₂O, financed by the Italian Ministero per le Politiche Agricole Alimentari e Forestali (MIPAAF), Direzione Generale per la Promozione della Qualità, Agroalimentare, Ippico e della Pesca.

Contact Details:

Email Id: domitilla.pulcini@crea.gov.it

Mobile No: +39 – 328 5348033

Office No: +39 – 06 90090263