

## Quality of Fish Extensively Reared in the Salt works of Trapani and Marsala (Western Sicily): Sea salt and fish as flagship products to promote the territory and natural reserves.

Santulli, A.2 & Messina, C.3

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### Abstract

*Along the coast between Trapani and Marsala (Western Sicily) are 1,400 ha of salt pans. These environments, generated by human work, are characterized by significant peculiarity from ecological, cultural, and ethno-anthropological points of view. For these reasons, the salt works of Trapani and Marsala are protected by two natural reserves.*

*However, it is worth stressing that they still have an important economic significance for the local population. In fact, they produce annually about 80,000 tons of sea salt. In addition, in the first storage basins (maximum salinity 60%), extensive polyculture rearing of sea bass and sea bream, with different species of mullet, is carried out. This is a production of a very small quantity of fish (from 50 to 90 q), but of very high value (18.00-22.00 €/kg).*

*The salt work basins utilized for fish farming are not farmer managed. Reared fish are self recruited. Juveniles migrate toward high trophic level confined water, where they grow on natural productivity of the basins. After two or three years, just before Christmas, when the fish market is particularly rich, farmers drain the basins to collect the fish produced.*

*One of the salt works, Salina San Teodoro, was completely converted to sea bass and sea bream cultivation, which are semi-intensively reared and fed on minced trash fish.*

*Owing to their peculiarity, instead of the "flag species" usually utilized to represent a natural reserve, for the salt works of Trapani, sea salt (the white gold of Sicily) was chosen as "flag natural product" to promote the reserves. The niche production of organic cultured fish from salt work basins of Trapani, owing to high consumer interest in natural products, could be utilized as additional "flag product" to promote the territory.*

*Our research was directed toward the definition of a model for managing these environments, keeping in mind that their conservation depends on development of sustainable utilization of natural resources, and considering the fact that salt works are artificially environments, and that only their economic utilization will guarantee their survival.*

*With the aim to exploit the products of organic aquaculture of the Trapani salt works, we preliminarily characterize and identify markers of traceability for salt work organic aquaculture production, to individualize and eventual distinctive character useful for certification of these organic products.*

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2 Istituto di Biologia Marina Consorzio Universitario Trapani, Lungomare Dante Alighieri, 91016 Erice, Italy, e-mail: santulli@unipa.it  
3 Sez. Biochimica Marina. Dip. Scienze Biochimiche. Università di Palermo.