

**SESSION
3****Integral Characterization of the Algarve Artisanal Octopus Fishery****SP 12*****Ana G Cabado^{1*}, Mafalda Rangel², Celina Costas¹, João Pontes², David Baptista de Sousa¹, Gonzalo Ojea¹ and Karim Erzini²***

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Abstract

The common octopus (*Octopus vulgaris*) trap and pot fishery of the Algarve (south Portugal) is the most important small-scale fishery of the region, with important biological and socioeconomic implications. This region has 17 fishing associations/producer organizations representing pot and traps octopus fishers. Common octopus is the most important species not only in terms of weight landed, but also in first sale value. In 2023, 2,401t of common octopus were landed at auctions in the Algarve, accounting for total first sale value of €19,480M, corresponding to 38.5% of the total octopus landed in mainland Portugal, and 40.2% of the total national revenue from the first sale of this species. In this region, this fishery is managed using an innovative co-management system that was recently implemented (March 2024).

The European Horizon Sea2See project (<https://sea2see.eu/>) aims at increasing consumer confidence and acceptance regarding sustainably fished or farmed seafood in Europe. In this context, we have carried out a risk-benefit analysis with octopus from two geographically differentiated areas in Algarve. Results show that, from the sanitary point of view, this cephalopod does not present any risk to human health since all contaminants evaluated are, either absent or found in an extremely low concentration, and very well below the legislated limit. In those parameters, which are not regulated, the obtained results were also below those recommended in the bibliography.

Regarding consumer acceptance, freshness of both octopuses shows excellent organoleptic qualities and very good assessment by the panel of tasters. From a nutritional point of view, octopuses contain elevated amount of high-quality protein. Besides, the percentage of essential amino acids is higher than the recommended for adults, children and almost reaches to the infants. In this species, its high content of certain micronutrients, vitamins, and minerals, also stands out, as vitamins B8 and 12, magnesium, copper, selenium and phosphorus. Finally, regarding quality index of lipids, we can assess that octopus consumption helps to prevent or reduce cardiovascular diseases.