

MEDUSA *CATOSTYLUS TAGI*: (I) PRELIMINARY STUDIES ON MORPHOLOGY, CHEMICAL COMPOSITION, BIOLUMINESCENCE AND ANTIOXIDANT ACTIVITY

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The Portuguese continental coast, specially Tejo and Sado estuaries, is the habitat of *Catostylus tagi* [1]. This barely studied medusa was first described in 1869, by Haeckel, and is classified in the *Cnidaria* phylum, *Scyphozoa* class, *Rhizostomeae* order, *Catostylidae* family, *Catostylus* genus. According to the European Register of Marine Species, the referred medusa is the only species of the *Catostylidae* family found in the European continent [2]. *C. tagi* is particularly abundant during the summer.

Several medusas from the *Rhizostomae* order are traditionally used as food in some oriental countries [3]. Simultaneously, modern medusa utilizations are related to bioluminescence [4], toxicology [5] and biopolymers [6].

The lack of information on this genus along with the recent discoveries of new marine molecules showing anti-arthritis, anti-inflammatory or antioxidant properties motivated our studies [7]. In addition, the abundant medusa biomass could be evaluated as another natural collagen source, alternative to bovine collagen, with its multiple cosmetic and surgical potential uses [8].

The capture and sample preparation methods were optimized in 2003 [9]. Results reported in this poster relate to 65 animals that were captured in the river Sado in August and September of 2004. Macroscopic aspects, like mass and dimensions, were evaluated as well as their chemical characteristics. The procedure included the analysis for humidity, ashes, total nitrogen content (Kjeldahl), fatty acids composition (GC) and heavy metals (ICP) in both umbrella and tentacles of the medusas [10]. The hypothesis of bioluminescence was analysed by spectrofluorimetric assays [11] while an eventual antioxidant activity of medusa extracts was investigated by chemical tests [12].



C. tagi by J.Gouveia

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