

BIOLOGICAL ANALYSES ON HALIEUTIC RESOURCES

Nutritional aspects and antioxidant properties of locally interesting species



The blue and red shrimp *Aristeus antennatus* and the rudderfish *Centrolophus niger* are important species for fisheries in the Ligurian Sea. Our investigations on these species regard both edible and non-edible parts and have the goal of a better characterization of these typical local products. In the frame of a sustainable fishery and of circular economy, we aim to give value to usually discarded parts (i.e. shell, viscera, skin). Same investigations are also carried out on other marine species in collaboration with other research groups (e.g. the Antarctic teleost *Dissostichus mawsoni* in collaboration with the National Research Council). Moreover, we study the reproductive cycle of the species of interest, in order to obtain the biological parameters useful for a better fisheries management.

The used techniques are morphometric, macroscopic and microscopic investigations on the maturation stages to extrapolate specific indexes (e.g. GSI, L_{50}), biochemical investigations on lipids and antioxidant substances (e.g. astaxanthin), observation of gross and microscopic anatomy, in vitro assays of interaction between extracts and three-dimensional cultures (e.g. intestinal epithelium).

Keywords: Nutrition, antioxidants, reproductive cycles, environmental adaptations

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