

**Ofelio, Claudia**  
University of Vigo  
Nationality: Italian

Orientation: Sustainable use of Marine Resources  
Specialization Area: Aquaculture  
Research Line: 2.9 Feeding and Nutrition in Aquaculture



**PhD project: Ontogenetic development and digestive functions in the long snouted seahorse *Hippocampus guttulatus***

**Supervisors:** Dr. Miquel Planas Oliver (Marine research Institute-CSIC)  
Dr. Giuseppe Radaelli (University of Padova)

**Summary:** The European long snouted seahorse *Hippocampus guttulatus* Cuvier 1829 is a recent candidate in the ornamental trade and its rearing will help in both the experimental assessment of ecological hypothesis and further development of conservational plans. Many aspects concerning rearing conditions have been recently investigated, allowing to successfully breed this species in captivity. However, there is still a lack of knowledge on many biological and physiological aspects, including developmental features.

The present Doctoral Thesis aim i) to describe the general development of most vital organs during the ontogeny of *H. guttulatus* through histological techniques; ii) to determine the effect of different diets on the biochemical composition of gut and liver through conventional histology and infra-red spectroscopy; iii) To describe the digestive functions in *H. guttulatus* juveniles through conventional histochemistry ; iv) to describe the morphological development of the digestive system during the ontogeny through micro computed tomography and 3D image reconstruction.

