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USE OF X-RAY COMPUTED TOMOGRAPHY TO STUDY THE FAT IN THE GILT-HEAD SEA BREAM (*SPARUS AURATA*)

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Aquaculture has grown rapidly in the last decades, which is traduced in considerably interest of scientist community in commercial fish. Therefore, innovative techniques start to be applied in fish to measure biometric parameters. The final aim of such studies is to determine fish quality using a few numbers of live specimens. In this sense, it is well known that fat contributes to the nutritional and organoleptic characteristics of fish flesh. The present work was carried out to analyze radiologically the fat *in situ* in a marine fish species farmed worldwide, gilthead sea bream (*Sparus aurata* L.) through the X-ray computed tomography (micro CT equipment). Different measures and image analysis were made using the Carestream Molecular Imaging Albira CT system in conjunction with, PMOD, Amide and VolView software packages. Our results showed that the density values for fat in this species were from -115 to +50 HU. Furthermore, fat distribution was visualized and described in the complete fish body. This work validates and demonstrates the application of a fully automated image analysis technique to locate and quantify fat in fish.

Biography

Diana Cecilia Ceballos Francisco has completed her Graduation in Veterinary Medicine. She is actually a Pre-doctoral student in Molecular Biology and Biotechnology at University of Murcia (UMU). His research area focuses on the study of the immune system of teleost fish, mainly farm fish. In this field, she has published and collaborated in some papers in reputed journals of aquaculture and immunology.

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