ORAL COMMUNICATIONS

REPRODUCTIVE DYNAMICS AND PHYSIOLOGICAL CONDITION IN DIFFERENT SIZE CLASSES OF COMMON SOLE (*SOLEA SOLEA*) *FROM THE NORTH-CENTRAL ADRIATIC SEA*

G. Chemello[1], L. Tortora[1], C. Santoni[1], E. Giorgini[1], S. Colella[2], G. Gioacchini[1]

[1]Dept. of Life and Environmental Science, Polytechnic University of Marche, Italy; [2]National Research Council (CNR), Institute for Marine Biological Resources and Biotechnology (IRBIM), Italy

The common sole (Solea solea) is a widely distributed flatfish, also found in the north-central Adriatic Sea, where its reproductive strategy is of considerable interest but remains poorly investigated. This study compares the reproductive dynamics of females from two size classes (small and large) by collecting biometric data and histological samples throughout the reproductive season.
The analysis of somatic and reproductive indices (HSI, Fulton's condition factor, and GSI), together with the characterization of ovarian developmental stages, highlighted differences between females at their first reproductive event and larger females that had already undergone at least one previous reproductive event.
Furthermore, data on hepatic parameters, such as lipid percentage and melanomacrophages frequency, suggested that the two classes invest differently in reproduction and that the reproductive event influences the health status of the females.
Finally, FTIR imaging analysis was used to characterize variations in the macromolecular composition of the liver in both small and large females throughout the reproductive period.