CIESM Congress Session : Phytoplankton I

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Moderator's Synthesis

Acknowledging that phytoplankton taxonomy (like almost all taxonomy) is a still developing construct, research on phytoplankton is in great need of gathered and accessible information on phytoplankton species and morphological concepts. Current literature (books) is not up to date and does not cover the entire known range of species for the Mediterranean. Dynamic solutions like "algaebase" appear to be desirable. More effort to complete the dataset is greatly needed to help taxonomic research and education as well as to help unifying taxonomic concepts around the Mediterranean, not in the least as basis for the further exploration of genetic diversity.

A distinct lack of well annotated genomes of phytoplankton organisms is noted. This slows down the transgression towards postgenomic methods in phytoplankton research. We identified a lack of experimentally backed up knowledge about the physiology of phytoplankton species. This knowledge is key to further our understanding of Mediterranean ecosystem functioning as well as for using taxonomy based analyses for ecosystem analysis and predictive studies.

The power for ecological predictions and analyses of phytoplankton datasets is by far not fully employed in current monitoring setups.

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