

CIESM Congress Session : Seaweeds and seagrasses
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Moderator's Synthesis

Insight into the current status of macrophytes within the Mediterranean and Black seas was presented by the moderator in his introductory talk. Seaweeds represent a highly polyphyletic ensemble of unrelated taxa, so that there is no definition of this set, morphological, physiological, ecological, cytological and/or biochemical. Some seaweeds (macroalgae) belong to the kingdom stramenopiles ('brown algae'), others to the kingdom Archaeplastida, subkingdom Rhodobionta ('red algae') and subkingdom Viridiplantae ('green algae'). As far as the seagrasses are concerned, they also belong to the subkingdom Viridiplantae. Brown algae (Phaeophyceae) were used as a model in analysing the status of seaweeds. The 1992 checklist encompassed 265 taxa (248 probably native, 17 probably non-indigenous). A quarter of a century later, 6 no-longer accepted taxa were removed, 31 taxa probably native were newly recorded or described, and 5 more non-indigenous taxa were recorded (unpublished moderator's data). Is this relatively weak increase, from 265 to 295 taxa, indicator of a well-known taxon (brown algae), or is it due to the much-dreaded extinction of taxonomists? Have some species become extinct? A very conservative analysis, excluding doubtful and poorly known species, shows that 5 % of the taxa have not been recorded in the past 50 years or more. In addition, local and/or functional extinctions (French Catalonia, French Riviera, Provence, etc.) have been reported, e.g. within the genera *Cystoseira* and *Sargassum*.

High quality contributions were presented during the session, giving rise to too many questions (therefore often postponed to the next poster session). The contributions and the questions contributed to illustrate, clarify sometimes readjust the introductory talk. A 'forgotten' *Cystoseira* species has been rediscovered in Algeria. The success story of the seagrass recovery (*Cymodocea nodosa* and *Zostera noltei*), within two emblematic coastal lagoons of Tunisia, was reported, illustrating the status of Mediterranean seagrasses, sometimes better than usually claimed. A promising low-cost method of mapping seagrass beds (*Posidonia oceanica*) has been tested and evaluated. The species composition of seaweed assemblages has been compared between impacted (nutrient enrichment and turbidity) and non-impacted sites; this leads to the identification of the discriminant taxa, prone to be used in the framework of biological indicators. The influence of the basibiont (the species supporting the epiphytic community) was also emphasized, and must be taken into account.

