

Distribution and Preliminary Evaluation of the State of the *Posidonia oceanica* on the Coasts of Valencia (Spain, Western Mediterranean)

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The studied sector of shoreline corresponds to all the coasts from Vinaroz (in the south of Ebro's Delta) to San Antonio Cape (Alicante). There are several works about this area (1, 2).

This study has been realized during two years and it is based on the realization of perpendicular transects to the coasts in scuba-diving with a one-man hydroplane. There was an average of 3 Km distance between the transects, from level 0 to 20 m depth. This precisely allows us to estimate the state of the meadows, and to observe the substitution facies distribution.

The substitution facies are almost exclusively those of *Cymodocea nodosa*, *Caulerpa prolifera* (5), *Dyctiopteris membranacea* and those of photophilic algae in sheltered areas biocoenosis (3, 4).

Four sectors can be differentiated on this coast:

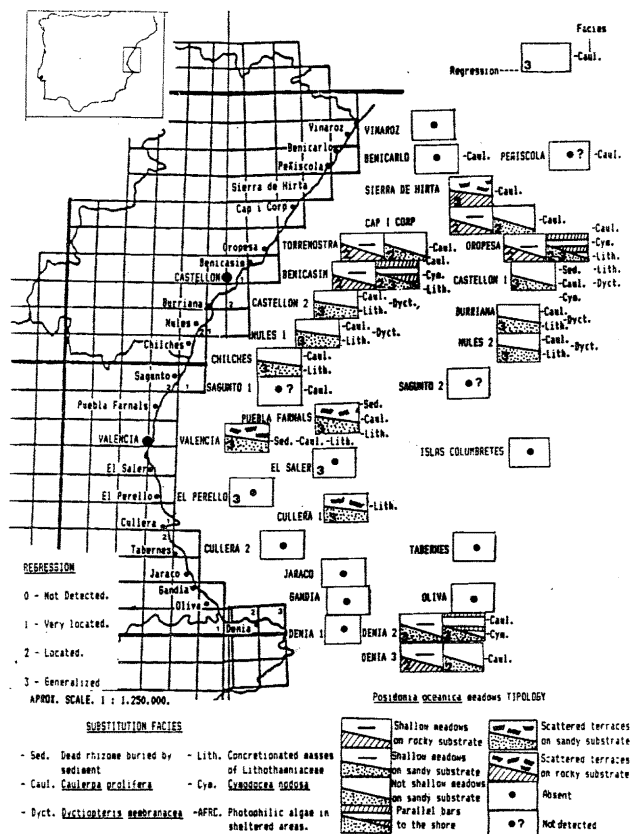
- Vinaroz-Torrenostora sector. There is a significant influence of the Ebro river in all this zone, because of the long-shore transport carries the materials from the river towards the south.

A general lack of *P. oceanica* can be observed. Only small enclaves of it remain in Alcocebre.

- Torrenostora-Mijares river sector. On this strip of the coast, *P. oceanica* meadows are continuous and their representation is good although there is a general regression. This regression is especially important in the superior limits, where substitution facies of *C. prolifera* can be normally settled. This alga together with *D. membranacea* forms large recoverings up to 9 m depth in the shallow zones of meadows in Castellón.

- Mijares river-Valencia sector. There are very degraded meadows in this sector. And in their inferior limits a great proliferation on concreted masses of Lithothamniaceae onto dead rhizome terraces can be observed.

- Valencia-San Antonio Cape sector. This shoreline zone is under the influence of great fresh-water flows because it is a coast of lagoons. Moreover, big amounts of sediments are also poured here through the great number of rivers that run into it. *P. oceanica* meadows are completely lost; sometimes buried by sediments and some others due to hard tempests. And concreted masses of Lithothamniaceae can be also found onto dead terraces in deep areas. In the far south of this sector (Vergel-Denia sector) *P. oceanica* meadows are found and also form barrier-reefs which go parallel along 2 Km of the coast approximately. And they are in a state of clear regression.



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